

Math Practice Exam for Final Term 3



تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ← المناهج الإماراتية ← الصف السادس ← رياضيات ← الفصل الثالث ← ملفات متنوعة ← الملف

تاريخ إضافة الملف على موقع المناهج: 2026-06-07 13:20:22

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي | للمدرس

المزيد من مادة
رياضيات:

إعداد: Abohatem Asmaa .Ms

التواصل الاجتماعي بحسب الصف السادس



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف السادس والمادة رياضيات في الفصل الثالث

قوانين الهندسة مادة الرياضيات وفق الهيكل

1

مراجعة الاختبار التكويني الثاني - الوحدة التاسعة وفق الهيكل

2

Reveal Coverage Grade 6 GEN

3

Reveal Coverage Grade 6 GEN Solution

4

اختبار شامل ومفصل للهيكل الوزاري 2026

5

Math Practice Exam for Final_Term3 _ 2025/2026

Units	7 ,8 ,9 and 10
Cycle	2
Grade/ Section	6 Advanced
Student Name	
Student ID No.	

Type of Questions	Grade	Name of the corrector
MCQ (25 Questions)	/100	

Question 1

Rami went to a store to buy apples that cost AED 4 each. The rule for finding the total cost is $c = 4x$, where x is the number of apples and c is the total cost.

Which table shows correctly the total cost if Rami buys 4, 5, 6, and 7 apples.

A			Input	Rule	Output	C			Input	Rule	Output
			4	$4(4)$	19				4	$4(4)$	16
			5	$4(5)$	20				5	$4(5)$	21
			6	$4(6)$	21				6	$4(6)$	24
			7	$4(7)$	28				7	$4(7)$	43

B			Input	Rule	Output	D			Input	Rule	Output
			4	$4(4)$	1				4	$4(4)$	16
			5	$4(5)$	5				5	$4(5)$	20
			6	$4(6)$	9				6	$4(6)$	24
			7	$4(7)$	13				7	$4(7)$	28

Question 2

Jason makes smoothies using a recipe that calls for 1 pineapple for every 2 servings. The table shows the relationship between the number of servings and the number of pineapples.

Servings	Pineapples
2	1
4	2
6	3

A	The number of pineapples is the independent variable, and the number of servings is the dependent variable.	C	Both the number of servings and the number of pineapples are independent variables.
B	The number of servings is the independent variable, and the number of pineapples is the dependent variable.	D	Both the number of servings and the number of pineapples are dependent variables.

Question 3

Ben makes AED 6 profit on each box of chocolates sold. How much profit does he make if he sells 4, 6, or 8 boxes? Use the rule $6b$ to find the profit, p

A	AED 10, AED 12, or AED 14.	C	AED 10, AED 30, or AED 145.
B	AED 24, AED 36, or AED 48.	D	AED 9, AED 11, or AED 13.

Question 4

Sadie ordered a pizza and had it delivered. The delivery fee is \$3.50. The total cost c is equal to the cost of her pizza p plus \$3.50. The rule is $c = p + 3.50$. Which of the following shows the total costs if her pizza costs \$9.75, \$12.00, and \$14.50?

Input, Cost of Pizza (\$), p	Rule $p + 3.50$	Output, Total Cost (\$), c
9.75	→	
12.00	→	
14.50	→	

A	\$12.25, \$14.50, \$17.00	C	\$13.50, \$15.75, \$18.25
B	\$13.25, \$15.50, \$18.00	D	\$12.75, \$15.00, \$17.50

Question 5

Joshua has a coupon for \$1.50 off his purchase at the souvenir shop. The total cost c is equal to the cost of his purchase p minus \$1.50. The rule is $c = p - 1.50$. Which of the following shows the total costs if his purchase is \$5.67, \$8.34, and \$11.97?

A	\$4.17, \$6.84, \$10.47	C	\$4.67, \$7.34, \$10.97
B	\$3.17, \$5.84, \$9.47	D	\$4.17, \$7.84, \$10.47

Question 6

Miranda has a coupon for \$0.75 off any salad at a restaurant. The total cost c is equal to the cost of her salad s minus \$0.75. The rule is $c = s - 0.75$. Which of the following shows the total costs if her salad costs \$2.79, \$3.55, and \$4.25?

Input, Cost of Salad (\$), s	Rule $s - 0.75$	Output, Total Cost (\$), c
2.79	→	
3.55	→	
4.25	→	

A	\$2.04, \$2.80, \$3.50	C	\$2.04, \$3.30, \$4.00
B	\$2.14, \$2.90, \$3.60	D	\$1.79, \$2.55, \$3.25

Question 7

Avery is buying material by the yard to make bags. The material costs \$4.98 per yard. The total cost c of y yards is equal to 4.98 times y . The rule is $c = 4.98y$. Which of the following shows the number of yards Avery purchased if the total cost is \$14.94, \$29.88, and \$44.82?

Input, Number of Yards, y	Rule $4.98y$	Output, Total Cost (\$), c
	←	14.94
	←	29.88
	←	44.82

A	2, 4, 6	C	3, 6, 9
B	3, 5, 7	D	4, 8, 12

Question 8

Each pie at a bakery costs \$9.50. The total cost c of p pies is equal to 9.50 times p . The rule is $c = 9.50p$. Which of the following shows the number of pies purchased if the total cost is \$19.00, \$28.50, and \$47.50?

A	2, 3, 5	C	1, 3, 5
B	2, 4, 6	D	3, 4, 5

Question 9

Anthony is buying plants for his garden. Each plant costs \$0.95. The total cost c of p plants is equal to 0.95 times p . The rule is $c = 0.95p$. Which of the following shows the number of plants Anthony purchased if the total cost is \$7.60, \$11.40, and \$15.20?

Input, Number of Plants, p	Rule $0.95p$	Output, Total Cost (\$), c
	←	7.60
	←	11.40
	←	15.20

A	7, 12, 16	C	8, 10, 12
B	6, 12, 18	D	8, 12, 16

Question 10

A store charges \$1.70 for a fountain soft drink. The total cost, c , of d soft drinks is equal to 1.7 times d . The table below represents this situation.

Input, d	Rule, $1.7d$	Output, c
1	$1.7(1)$	1.7
2	$1.7(2)$	3.4
3	$1.7(3)$	?

What is the missing value in the output column?

A	4.1	C	5.1
B	4.7	D	5.7

Question 11

Mr. Hamilton has 144 pencils to give to his students. The number of pencils, p , each student will receive is equal to 144 divided by s , the number of students. The table below represents this situation. Which of the following numbers should be entered into the input column (top to bottom) in order to complete the table?

Input, s	Rule, $\frac{144}{s}$	Output, p
?	$\frac{144}{s}$	12
?	$\frac{144}{s}$	9
?	$\frac{144}{s}$	6

A	9, 16, 24	C	12, 16, 24
B	9, 12, 16	D	12, 18, 24

Question 1

Tom has a rock collection. He puts the same number of rocks in each drawer.

Which equation can he use to find the number of rocks in d drawers?

Drawers, d	Rocks, r
1	7
2	14
3	21
4	28

A $r = d + 7$

C $r = d$

B $r = 7d$

D $r = 2d$

Question 2

Which equation describes the relationship in the table?

Number of Balls, b	Total Cost (AED), c
1	30
2	40
3	50
4	60

A $c = 10b + 5$

C $c = 10b + 20$

B $c = 20b - 10$

D $c = 10b$

Question 3

The table shows the relationship between the number of people in a group and the number of trees they planted. Which equation describes the rule of the table?

People, p	Trees, t
3	12
5	20
7	28

A $t = 8 + p$

C $t = \frac{p}{4}$

B $t = p - 2$

D $t = 4p$

Question 4

The table shows the number of stamps, s , Mark has bought based on the number of weeks, w .

Which equation describes the relationship?

Number of Weeks, w	Number of Stamps, s
1	20
2	70
3	120
4	170

A $s = 30w - 50$

C $s = 50w + 30$

B $s = 30w + 50$

D $s = 50w - 30$

Question 5

The table shows the number of stamps, s , Mark has bought based on the number of weeks, w . Which equation describes the relationship?

Number of Weeks, w	Number of Stamps, s
1	60
2	80
3	100
4	120

A $s = 20w + 40$

C $s = 40w + 20$

B $s = 80w - 20$

D $s = 60w + 20$

Question 6

The table shows the relationship between the number of sandwiches bought and the cost. Which describes the rule?

Number of Sandwiches, s	Total Cost (AED), c
3	18
5	30
7	42
9	54

A $c = 6s$

C $c = 5s + 1$

B $s = 6c$

D $c = s + 6$

Question 7

The table shows the total cost c of buying t movie tickets. Which equation represents the relationship between c and t ?

Number of Tickets, t	Total Cost (\$), c
1	7
2	14
3	21
4	28

A $c = t + 7$

C $c = 14t$

B $c = 7t$

D $c = 7t + 7$

Question 8

The table shows the total number of pencils p in b boxes. Which equation represents the relationship between p and b ?

Number of Boxes, b	Total Number of Pencils, p
1	12
2	24
3	36
4	48

A $p = 12b$

C $p = b + 12$

B $p = 10b + 2$

D $p = 24b$

Question 9

The table shows the total cost c of bowling any number of games and renting bowling shoes. Which two-step equation represents the total cost c for bowling g games?

Number of Games, g	Total Cost (\$), c
1	6
2	10
3	14
4	18

A $c = 4g + 2$

C $c = 4g + 6$

B $c = 6g$

D $c = 2g + 4$

Question 10

The table shows the total cost c of renting a canoe based on the number of hours h and a one-time rental fee. Which two-step equation represents the total cost c for renting a canoe for h hours?

Number of Hours, h	Total Cost (\$), c
1	16
2	27
3	38
4	49

A $c = 11h - 5$

C $c = 10h + 6$

B $c = 16h$

D $c = 11h + 5$

Question 11

The table shows the total cost c of belonging to a fitness center based on the number of months m and a one-time registration fee. Which two-step equation represents the total cost c for belonging to the fitness center for m months?

Number of Months, m	Total Cost (\$), c
1	25
2	40
3	55
4	70

A $c = 15m + 10$

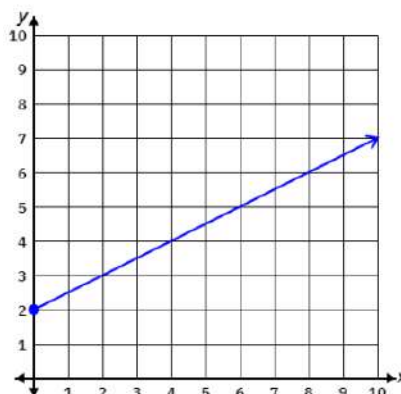
C $c = 10m + 15$

B $c = 25m$

D $c = 15m - 10$

Question 1

Which situation matches the graph?



A

A group hikes 0.7 kilometer and then 2 kilometers per hour for 10 hours.

C

A group hikes 2 kilometers and then they hike 0.5 kilometers each hour for 10 hours

B

A group hikes 2 kilometers and then 7 kilometers per hour for 10 hours.

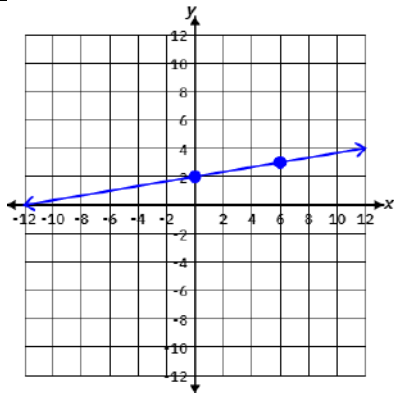
D

A group hikes 7 kilometers and then 2 kilometers per hour.

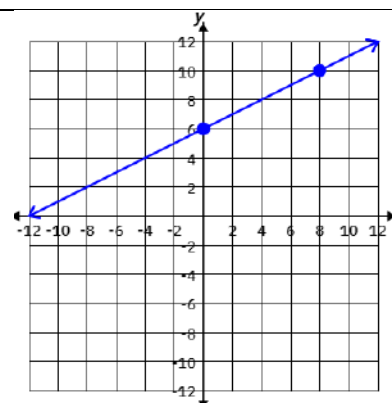
Question 2

Which graph represents the equation $y = \frac{1}{2}x + 6$?

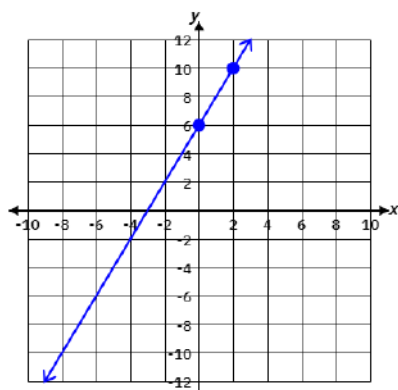
A



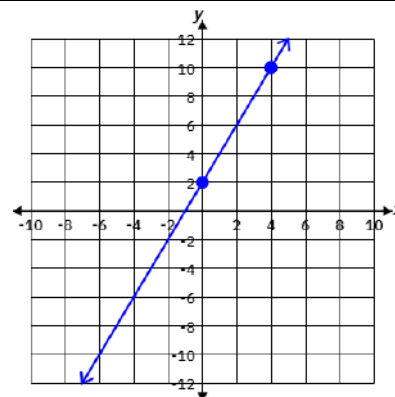
C



B

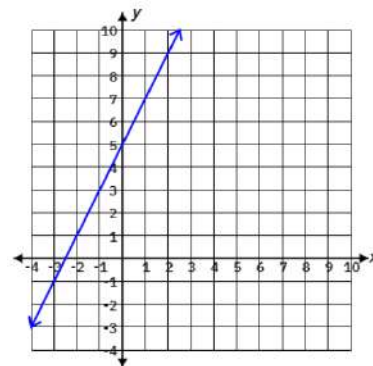


D



Question 3

Which equation matches the graph?



A

$$y = \frac{1}{2}x + 5$$

C

$$y = 5x + 2$$

B

$$y = 2x + 5$$

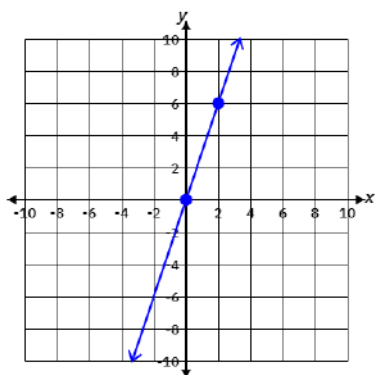
D

$$y = 3x$$

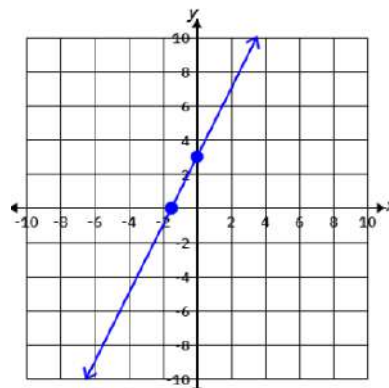
Question 4

Which graph represents the equation $y = 3x + 2$?

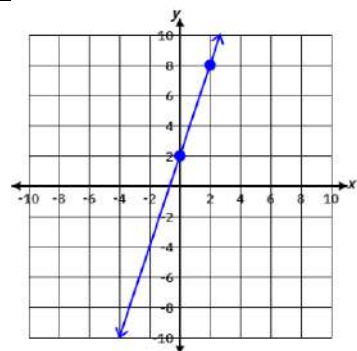
A



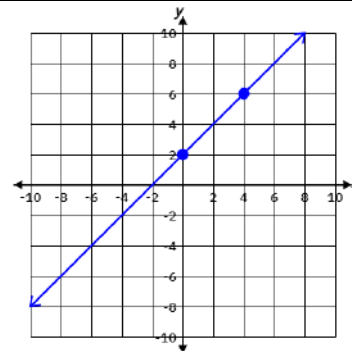
C



B

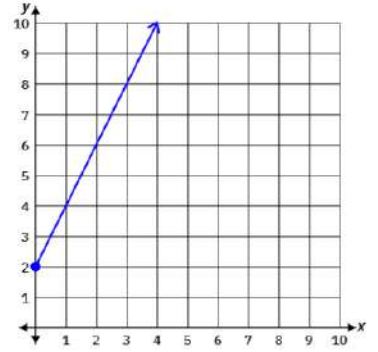


D



Question 5

Which situation matches the graph?



A	A group hikes 7 kilometers and then 2 kilometers per hour.	C	A group hikes 0.7 kilometer and then 2 kilometers per hour for 10 hours.
B	A group hikes 2 kilometers, and then hikes 2 kilometers each hour for 10 hours.	D	A group hikes 2 kilometers and then 0.5 kilometers per hour for 10 hours.

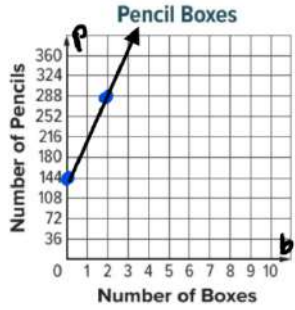
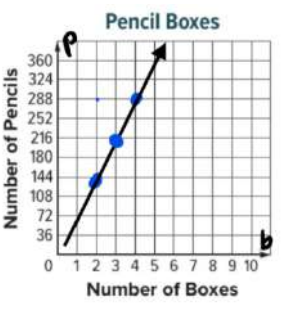
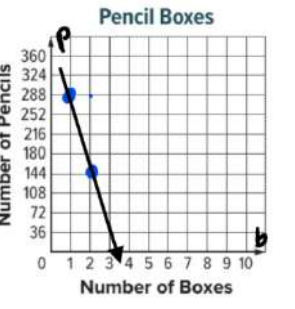
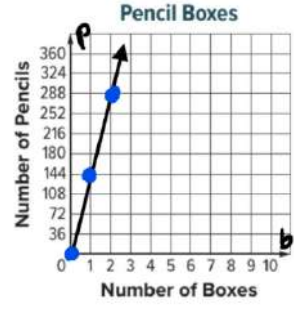
Question 6

Which graph represents the equation $y = 3x$?

A		C	
B		D	

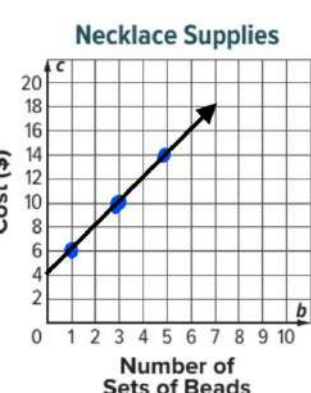
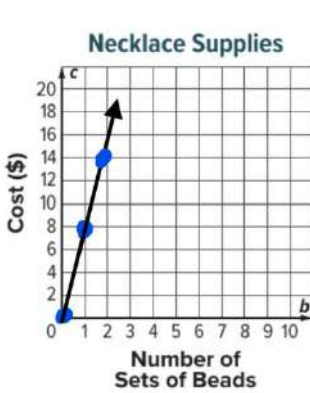
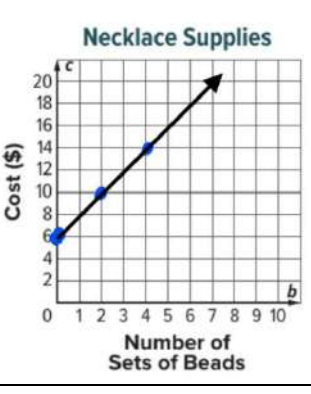
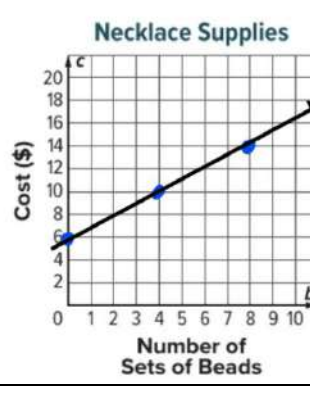
Question 7

The equation $p = 144b$ represents the number of pencils p in b boxes. Which graph represents this relationship?

A		C	
B		D	

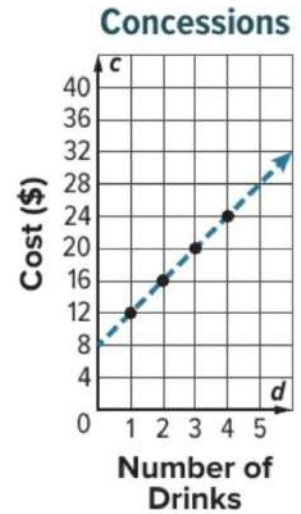
Question 8

The equation $c = 2b + 6$ represents the total cost c of b sets of beads and one necklace string. Which graph represents this relationship?

A		C	
B		D	

Question 9

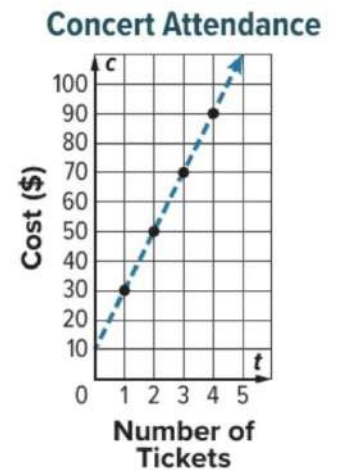
The graph shows the total cost c of buying one large bucket of popcorn and d large drinks. Which equation could be used to find the total cost?



A	$c = 4d$	C	$c = 8d + 4$
B	$c = 4d + 8$	D	$c = 12d$

Question 10

The graph shows the total cost c of buying one parking pass and t concert tickets. Which equation could be used to find the total cost?



A	$c = 20t$	C	$c = 10t + 20$
B	$c = 30t$	D	$c = 20t + 10$

Question 1

A school sells tickets to their school play through an online ticket company. Each ticket costs \$8 and the company charges a \$2.50 processing fee per order. Which equation represents the relationship between the number of tickets bought, t , and the total cost, c ?

A	$c = 8t$	C	$c = 2.50t + 8$
B	$c = 8t + 2.50$	D	$c = 10.50t$

Question 2

A school sells tickets to their school play through an online ticket company. Each ticket costs \$8 and the company charges a \$2.50 processing fee per order. Which table correctly represents the relationship between the number of tickets bought, t , and the total cost, c ?

A		<table><tr><th>Tickets (t)</th><th>Total Cost (c)</th></tr><tr><td>1</td><td>10.5</td></tr><tr><td>2</td><td>18.5</td></tr><tr><td>3</td><td>26.5</td></tr><tr><td>4</td><td>34.5</td></tr></table>		Tickets (t)	Total Cost (c)	1	10.5	2	18.5	3	26.5	4	34.5	C		<table><tr><th>Tickets (t)</th><th>Total Cost (c)</th></tr><tr><td>1</td><td>8</td></tr><tr><td>2</td><td>16</td></tr><tr><td>3</td><td>24</td></tr><tr><td>4</td><td>32</td></tr></table>		Tickets (t)	Total Cost (c)	1	8	2	16	3	24	4	32
		Tickets (t)	Total Cost (c)																								
		1	10.5																								
		2	18.5																								
		3	26.5																								
4	34.5																										
Tickets (t)	Total Cost (c)																										
1	8																										
2	16																										
3	24																										
4	32																										
B		<table><tr><th>Tickets (t)</th><th>Total Cost (c)</th></tr><tr><td>1</td><td>10</td></tr><tr><td>2</td><td>20</td></tr><tr><td>3</td><td>30</td></tr><tr><td>4</td><td>40</td></tr></table>		Tickets (t)	Total Cost (c)	1	10	2	20	3	30	4	40	D		<table><tr><th>Tickets (t)</th><th>Total Cost (c)</th></tr><tr><td>1</td><td>8.5</td></tr><tr><td>2</td><td>16.5</td></tr><tr><td>3</td><td>24.5</td></tr><tr><td>4</td><td>32.5</td></tr></table>		Tickets (t)	Total Cost (c)	1	8.5	2	16.5	3	24.5	4	32.5
		Tickets (t)	Total Cost (c)																								
		1	10																								
		2	20																								
		3	30																								
4	40																										
Tickets (t)	Total Cost (c)																										
1	8.5																										
2	16.5																										
3	24.5																										
4	32.5																										

Question 3

Carmelo earns a weekly allowance of \$5 plus an additional \$0.75 for each chore that he completes. Which equation represents the relationship between the total earned, t , and the number of chores completed, c ?

A	$t = 5c + 0.75$	C	$t = 0.75c$
B	$t = 0.75c + 5$	D	$t = 5(c + 0.75)$

Question 4

An electrician charges AED 250 for a house call and AED 300 per hour. Which equation can be used to determine E , the earnings for h hours?

A	$E = 250h + 300$	C	$E = 550h$
B	$E = 300h + 250$	D	$E = 300h - 250$

Question 5

Sally read **32 pages** of a book. Each day going forward, she plans to read **24 pages**. Which equation represents the number of pages, p , Sally will read after d days?

A	$p = 24d + 32$	C	$p = 32d - 24$
B	$p = 24d - 32$	D	$p = 32d + 24$

Question 6

A school sells tickets to their school play through an online ticket company. Each ticket costs \$8 and the company charges a \$2.50 processing fee per order. Which graph correctly represents the relationship between the number of tickets bought, t , and the total cost, c ?

A		C	
B		D	

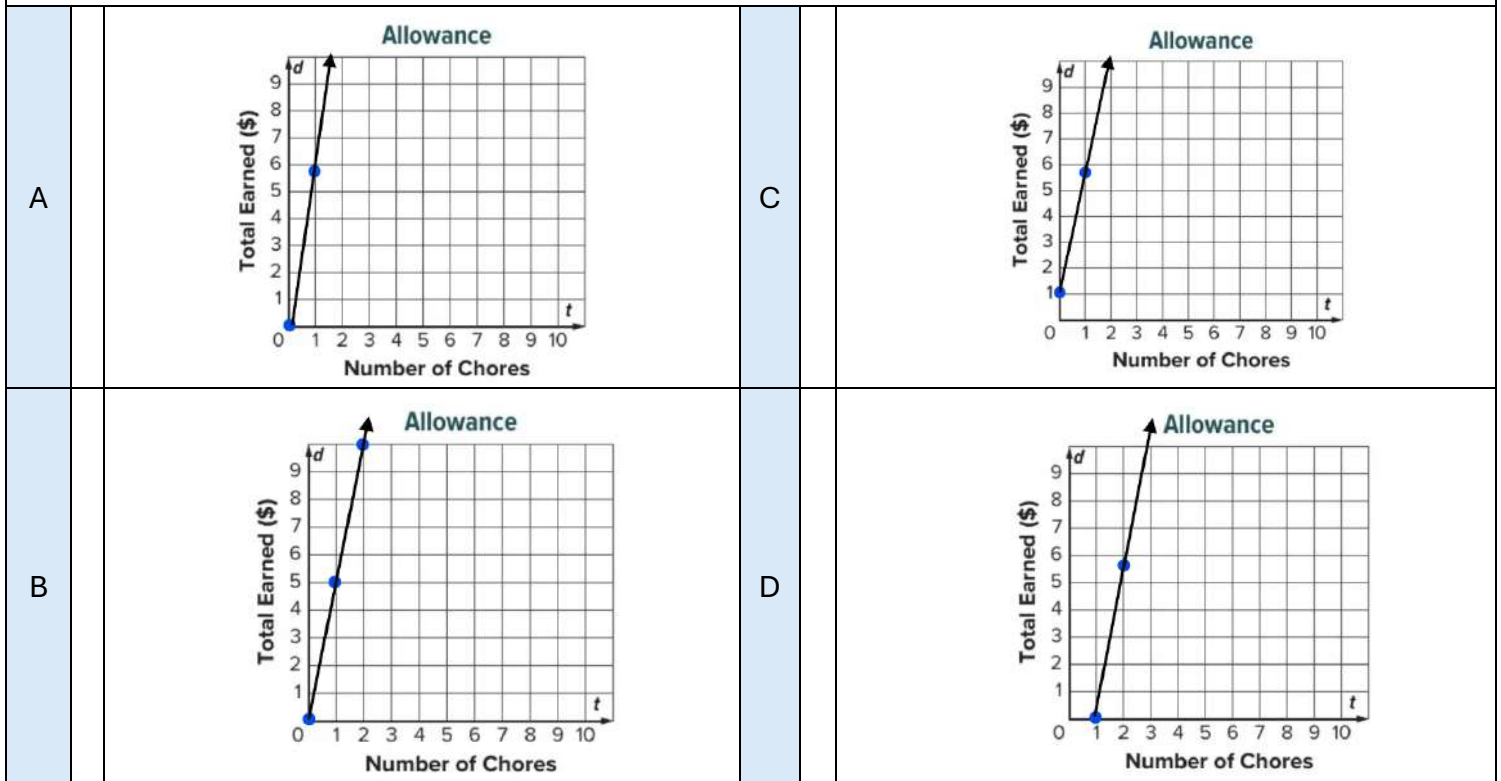
Question 7

Carmelo earns a weekly allowance of \$5 plus an additional \$0.75 for each chore that he completes. Which table correctly represents the relationship between the total earned, t , and the number of chores completed, c ?

A		<table><tr><th>Chores (c)</th><th>Total Earned (t)</th></tr><tr><td>0</td><td>5.00</td></tr><tr><td>1</td><td>5.75</td></tr><tr><td>2</td><td>6.50</td></tr><tr><td>3</td><td>7.25</td></tr></table>	Chores (c)	Total Earned (t)	0	5.00	1	5.75	2	6.50	3	7.25	C		<table><tr><th>Chores (c)</th><th>Total Earned (t)</th></tr><tr><td>0</td><td>0.00</td></tr><tr><td>1</td><td>0.75</td></tr><tr><td>2</td><td>1.50</td></tr><tr><td>3</td><td>2.25</td></tr></table>	Chores (c)	Total Earned (t)	0	0.00	1	0.75	2	1.50	3	2.25
		Chores (c)	Total Earned (t)																						
		0	5.00																						
		1	5.75																						
		2	6.50																						
3	7.25																								
Chores (c)	Total Earned (t)																								
0	0.00																								
1	0.75																								
2	1.50																								
3	2.25																								
B		<table><tr><th>Chores (c)</th><th>Total Earned (t)</th></tr><tr><td>0</td><td>5.00</td></tr><tr><td>1</td><td>6.00</td></tr><tr><td>2</td><td>7.00</td></tr><tr><td>3</td><td>8.00</td></tr></table>	Chores (c)	Total Earned (t)	0	5.00	1	6.00	2	7.00	3	8.00	D		<table><tr><th>Chores (c)</th><th>Total Earned (t)</th></tr><tr><td>0</td><td>0.75</td></tr><tr><td>1</td><td>5.75</td></tr><tr><td>2</td><td>10.75</td></tr><tr><td>3</td><td>15.75</td></tr></table>	Chores (c)	Total Earned (t)	0	0.75	1	5.75	2	10.75	3	15.75
		Chores (c)	Total Earned (t)																						
		0	5.00																						
		1	6.00																						
		2	7.00																						
3	8.00																								
Chores (c)	Total Earned (t)																								
0	0.75																								
1	5.75																								
2	10.75																								
3	15.75																								

Question 8

Carmelo earns a weekly allowance of **\$5** plus an additional **\$0.75** for each chore that he completes. Which graph correctly represents the relationship between the total earned, t , and the number of chores completed, c ?



Question 9

The table shows the earnings for each pie sold at the sixth-grade bake sale. Which equation represents the relationship between the number of pies sold, p , and the total earnings, e ?

Number of Pies, p	Total Earnings (\$), e
1	6
2	12
3	18

A	$e = p + 6$	C	$e = 12p$
B	$e = 6p + 1$	D	$e = 6p$

Question 10

A given rule is to subtract **5** from the input s to find the output t . Which equation represents this rule?

A	$5 - t = s$	C	$t - 5 = s$
B	$s - 5 = t$	D	$5 - s = t$

Question 11

Heath is selling magazine subscriptions. He earns \$10 for every subscription sold. Use s to represent the number sold and t for total earnings. Which of the following equations can be used to find Heath's total earnings t given s subscriptions sold?

A	$t = 10s$	C	$s = 10t$
B	$t = 10 + s$	D	$s = 10 + t$

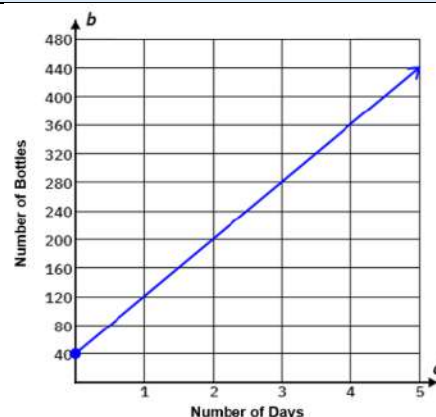
Question 12

A sports team starts with 50 points. Each time a task is completed, the team receives 15 points. Which completed table is correct?

A		<table><tr><th>Tasks Completed</th><th>Points</th></tr><tr><td>1</td><td>50</td></tr><tr><td>2</td><td>65</td></tr><tr><td>3</td><td>80</td></tr><tr><td>4</td><td>95</td></tr></table>	Tasks Completed	Points	1	50	2	65	3	80	4	95	C		<table><tr><th>Tasks Completed</th><th>Points</th></tr><tr><td>1</td><td>35</td></tr><tr><td>2</td><td>50</td></tr><tr><td>3</td><td>80</td></tr><tr><td>4</td><td>110</td></tr></table>	Tasks Completed	Points	1	35	2	50	3	80	4	110
		Tasks Completed	Points																						
		1	50																						
		2	65																						
		3	80																						
4	95																								
Tasks Completed	Points																								
1	35																								
2	50																								
3	80																								
4	110																								
B		<table><tr><th>Tasks Completed</th><th>Points</th></tr><tr><td>1</td><td>50</td></tr><tr><td>2</td><td>60</td></tr><tr><td>3</td><td>80</td></tr><tr><td>4</td><td>100</td></tr></table>	Tasks Completed	Points	1	50	2	60	3	80	4	100	D		<table><tr><th>Tasks Completed</th><th>Points</th></tr><tr><td>1</td><td>50</td></tr><tr><td>2</td><td>80</td></tr><tr><td>3</td><td>95</td></tr><tr><td>4</td><td>110</td></tr></table>	Tasks Completed	Points	1	50	2	80	3	95	4	110
		Tasks Completed	Points																						
		1	50																						
		2	60																						
		3	80																						
4	100																								
Tasks Completed	Points																								
1	50																								
2	80																								
3	95																								
4	110																								

Question 13

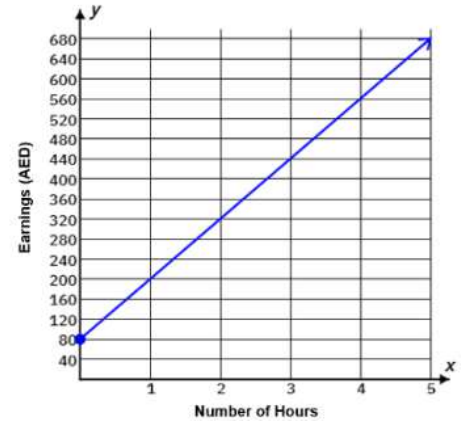
The graph shows the relationship between the number of days, d , and the number of bottles, b , that a class collected. Which equation represents the relationship?



A	$b = 40d + 80$	C	$b = 40d$
B	$b = 80d + 40$	D	$b = 120d + 40$

Question 14

The graph shows the relationship between the amount of money earned, in AED, and the number of hours worked to earn it.
Which equation represents the graph?



A $y = 80x + 100$

C $y = 120x + 80$

B $y = 80x + 120$

D $y = 100x + 80$

Question 15

Which table represents the equation $y = 3x + 5$?

A

x	y
2	14
4	20
6	26

C

x	y
2	13
4	23
6	33

B

x	y
2	8
4	16
6	24

D

x	y
2	11
4	17
6	23

Question 16

Sally has already collected 20 stamps. She plans to collect 5 more stamps each day going forward.
Which equation represents the total number of stamps, s , Sally will have after d days?

A $s = 20d - 5$

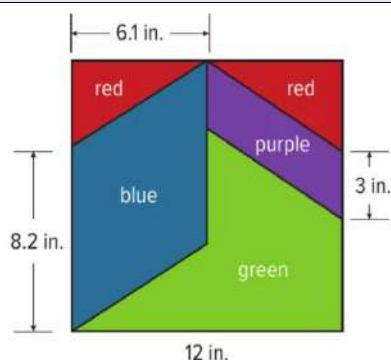
C $s = 5d + 20$

B $s = 5d - 20$

D $s = 20d + 5$

Question 1

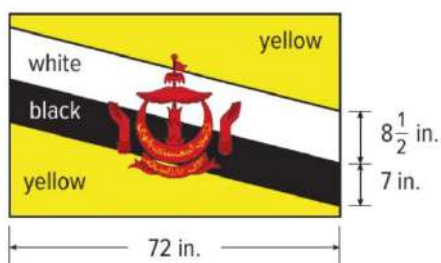
The pattern shows the dimensions of a quilting square that Nakida will use to make a quilt. How much blue fabric will she need to make one square?



A	25.0 in ²	C	50.02 in ²
B	37.5 in ²	D	62.5 in ²

Question 2

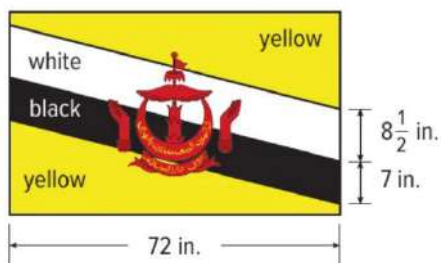
A group of students is painting the flag of Brunei for a geography project. Joseph is responsible for painting only the white background stripe of the flag. How many square inches will he cover with white paint?



A	504 in ²	C	648 in ²
B	612 in ²	D	720 in ²

Question 3

A group of students is painting the flag of Brunei for a geography project. Joseph is responsible for



painting only the white background stripe of the flag.
How many square inches will he cover with black paint?

A 504 in²

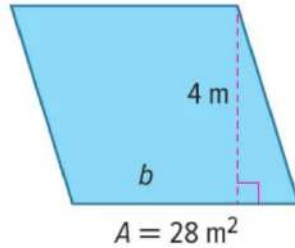
C 648 in²

B 612 in²

D 720 in²

Question 4

Find the missing dimension b of the parallelogram.



A 5 m

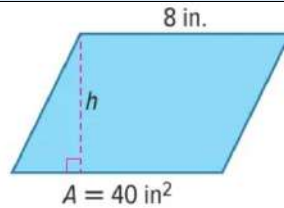
C 7 m

B 6 m

D 8 m

Question 5

Find the missing dimension h of the parallelogram.



A 5 in

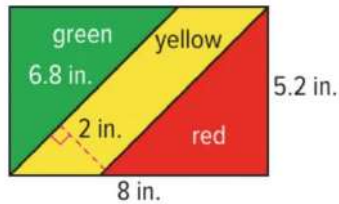
C 7 in

B 6 in

D 8 in

Question 6

The flag of the Republic of the Congo contains a yellow striped region shaped like a parallelogram. What is the area of the yellow striped region?



A 10 in²

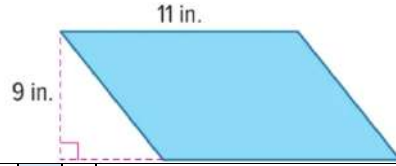
C 16 in²

B 12 in²

D 20 in²

Question 7

What is the area of the parallelogram?



- | | | | |
|---|---------------------|---|--------------------|
| A | 110 in ² | C | 20 in ² |
| B | 99 in ² | D | 88 in ² |

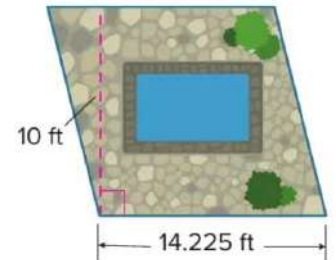
6 Use the area formula for a parallelogram to find areas or missing dimensions.

7-9

442

Question 1

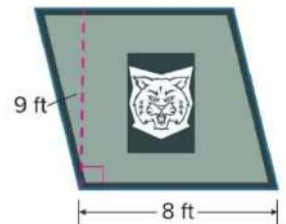
Liam is designing a patio and fountain for his backyard. The patio is shaped like a parallelogram. The fountain will cover **50 square feet** of the patio. What is the area of the patio that will remain after the fountain is installed?



- | | | | |
|---|------------------------|---|------------------------|
| A | 50.00 ft ² | C | 142.25 ft ² |
| B | 192.25 ft ² | D | 92.25 ft ² |

Question 2

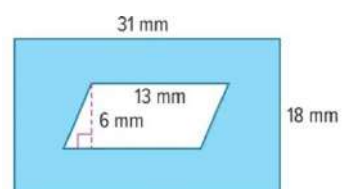
Tara and Veronica are making a parallelogram-shaped banner for a football game. A rectangular section with an area of 6 square feet will be used for a photo and will not be painted. Using the dimensions shown in the diagram, what is the area of the banner that will be painted?



- | | | | |
|---|--------------------|---|--------------------|
| A | 60 ft ² | C | 72 ft ² |
| B | 66 ft ² | D | 78 ft ² |

Question 3

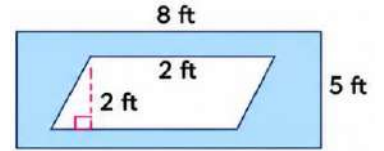
Find the Area of the shaded region.



A		480 mm ²	C		636 mm ²
B		558 mm ²	D		714 mm ²

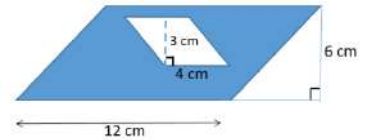
Question 4

Find the Area of the shaded region.

A 32 ft^2 C 40 ft^2 B 36 ft^2 D 44 ft^2

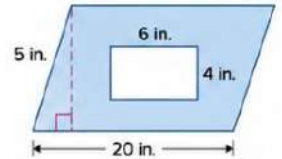
Question 5

Find the Area of the shaded region.

A 35 cm^2 C 45 cm^2 B 60 cm^2 D 50 cm^2

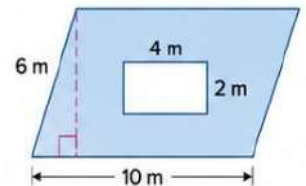
Question 6

Find the Area of the shaded region.

A 64 in^2 C 76 in^2 B 72 in^2 D 100 in^2

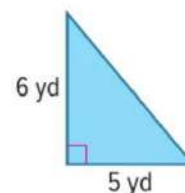
Question 7

Find the Area of the shaded region.

A 44 m^2 C 52 m^2 B 48 m^2 D 60 m^2

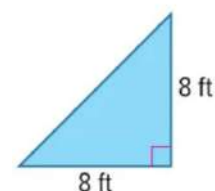
Question 1

Find the area of the triangle.

A 11 yd²C 30 yd²B 15 yd²D 60 yd²

Question 2

Find the area of the triangle.

A 16 ft²C 32 ft²B 64 ft²D 24 ft²

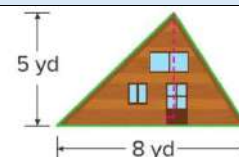
Question 3

Tameeka is in charge of designing a school pennant for spirit week. What is the area of the pennant?

A 8.875 ft²C 14.0 ft²B 11.375 ft²D 22.75 ft²

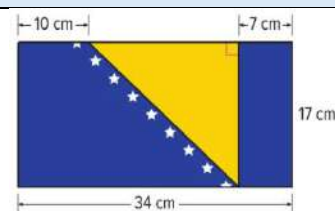
Question 4

Norma has an A-frame cabin. The back is shown below. If the total area of the windows and doors is 3.5 square yards, how many square yards of paint will she need to cover the back of the cabin?

A 13.5 yd²C 43.5 yd²B 16.5 yd²D 23.5 yd²

Question 5

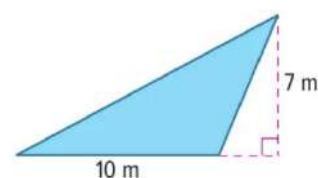
The flag of Bosnia and Herzegovina is shown. What is the area of the yellow triangle on the flag?



A		144.5 cm ²	C		204 cm ²
B		170 cm ²	D		289 cm ²

Question 6

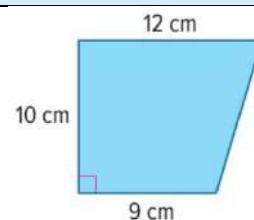
What is the area of the triangle?



A		50 m ²	C		35 m ²
B		70 m ²	D		140 m ²

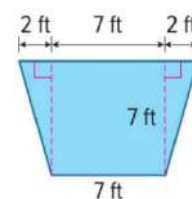
Question 1

Decompose the trapezoid to find its area.

A 90 cm^2 C 120 cm^2 B 00 cm^2 D 105 cm^2

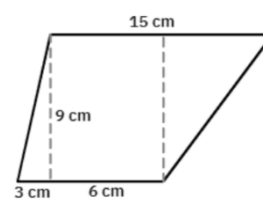
Question 2

Decompose the trapezoid to find its area.

A 56 ft^2 C 77 ft^2 B 63 ft^2 D 84 ft^2

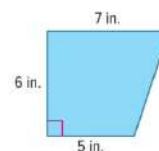
Question 3

Find the area of the trapezoid by decomposing it into simpler shapes.

A 67.5 cm^2 C 108 cm^2 B 94.5 cm^2 D 216 cm^2

Question 1

What is the area of the trapezoid?



A

 30 in^2

C

 42 in^2

B

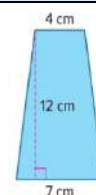
 36 in^2

D

 72 in^2

Question 2

What is the area of the trapezoid?



A

 44 cm^2

C

 66 cm^2

B

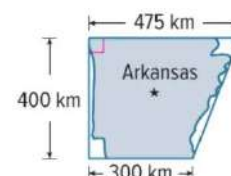
 60 cm^2

D

 72 cm^2

Question 3

The shape of Arkansas resembles a trapezoid. What is the approximate area of Arkansas?



A

 $155,000 \text{ km}^2$

C

 $165,000 \text{ km}^2$

B

 $160,000 \text{ km}^2$

D

 $170,000 \text{ km}^2$

Question 4

The top of the desk shown is in the shape of a trapezoid. What is the area of the top of the desk?



A

 540 in^2

C

 648 in^2

B

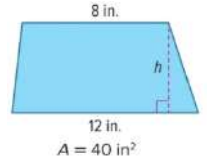
 576 in^2

D

 720 in^2

Question 5

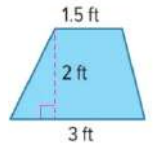
Find the missing height h of the trapezoid.



A		3 in	C		5 in
B		4 in	D		8 in

Question 6

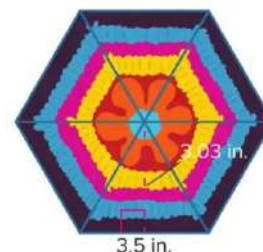
Ciro made a sign in the shape of a trapezoid. What was the area of Ciro's sign?



A		3 ft^2	C		4.5 ft^2
B		4 ft^2	D		6 ft^2

Question 1

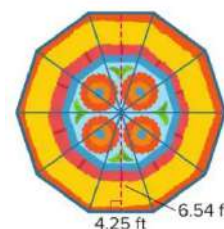
Kendra knitted a coaster shaped like a regular hexagon. What is the area of the coaster?



A	21.00 in ²	C	36.05 in ²
B	31.82 in ²	D	63.64 in ²

Question 2

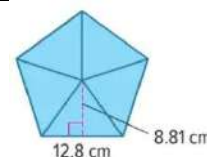
Paul bought a rug in the shape of a regular decagon. What is the area of the rug?



A	69.49 ft ²	C	138.98 ft ²
B	118.25 ft ²	D	277.95 ft ²

Question 3

A regular pentagon is shown. What is the area of the pentagon?



A	140.96 cm ²	C	320.00 cm ²
B	281.92 cm ²	D	563.84 cm ²

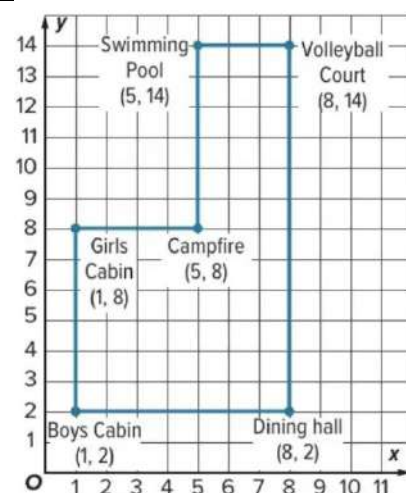
11 Graph the vertices of a polygon, draw the shape represented by the points, and then use the graphed polygon to find its area and perimeter.

1-2

477

Question 1

Find the perimeter of the summer camp shown on the coordinate plane.



A 24 units

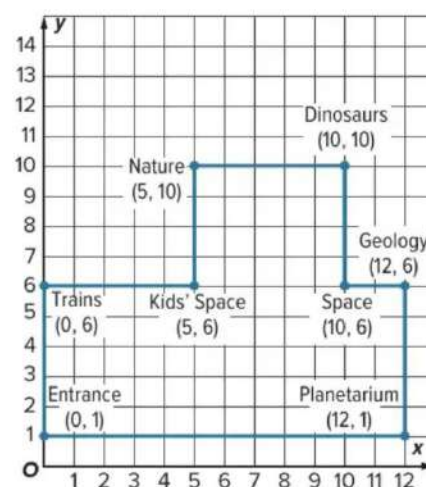
C 32 units

B 38 units

D 36 units

Question 2

Find the perimeter of the science center shown on the coordinate plane.



A 40 units

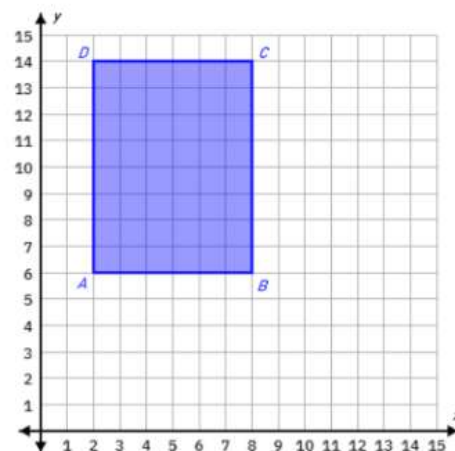
C 42 units

B 38 units

D 36 units

Question 3

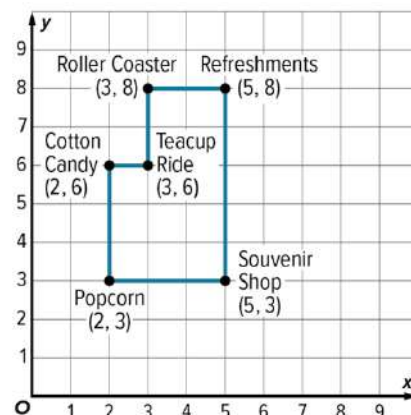
What is the perimeter?



A	24 units	C	14 units
B	28 units	D	21 units

Question 4

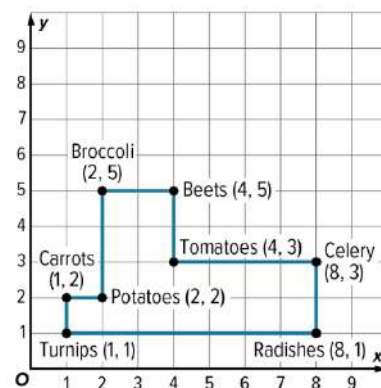
Find the perimeter of the amusement park shown on the coordinate plane



A	15 units	C	16 units
B	14 units	D	21 units

Question 5

Find the perimeter of the vegetable garden shown on the coordinate plane.



A

24 units

C

14 units

B

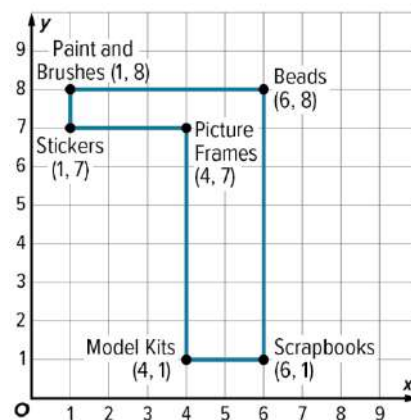
28 units

D

22 units

Question 6

Find the perimeter of the craft store shown on the coordinate plane.



A

24 units

C

14 units

B

28 units

D

22 units

Question 1

A rectangle has vertices **W(2, 7), X(2, 0), Y(6, 0), and Z(6, 7)**. Use the coordinates to find the perimeter of the rectangle.

A		18 units	C		24 units
B		22 units	D		28 units

Question 2

A rectangle has vertices **H(3, 0), I(3, 7), J(6, 7), and K(6, 0)**. Use the coordinates to find the perimeter of the rectangle.

A		18 units	C		20 units
B		22 units	D		28 units

Question 3

A polygon has vertices **A(3, 3), B(3, 6), and C(9, 3)**. Find the area of the polygon.

A		9 square units	C		18 square units
B		12 square units	D		24 square units

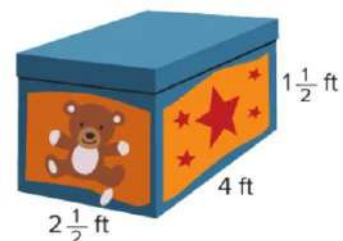
Question 4

A polygon has vertices **J(2, 3), K(4, 3), L(4, 7), and M(2, 7)**. What is the area of the polygon?

A		8 square units	C		12 square units
B		10 square units	D		16 square units

Question 1

What is the volume of the toy box?



A

8 ft^3

C

15 ft^3

B

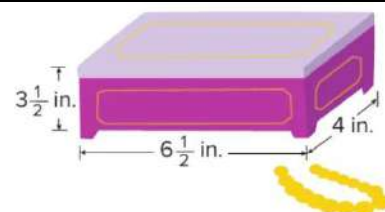
12 ft^3

D

18 ft^3

Question 2

What is the volume of the jewelry box?



A

84 in^3

C

96 in^3

B

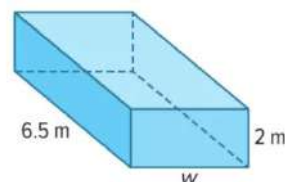
91 in^3

D

104 in^3

Question 3

The rectangular prism has a volume of 52 cubic meters. What is the width of the prism?



A

2 m

C

6.5 m

B

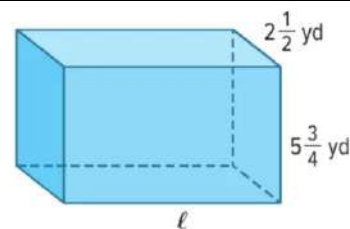
4 m

D

8 m

Question 4

The rectangular prism has a volume of 115 cubic yards. What is the length of the prism?



A	6 yd	C	10 yd
B	8 yd	D	12 yd

Question 5

Raphael drives a standard-sized dump truck with a rectangular prism shaped bed. The volume of the bed of the truck is 720 cubic feet. If the length of the bed is 15 feet and the width is 8 feet, what is the height of the bed of the dump truck?

A	6 yd	C	10 yd
B	8 yd	D	12 yd

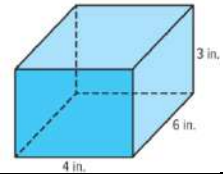
Question 6

A rectangular prism has a length of 8 inches, a width of $7\frac{1}{2}$ inches, and a height of $6\frac{1}{4}$ inches. What is the volume of the prism?

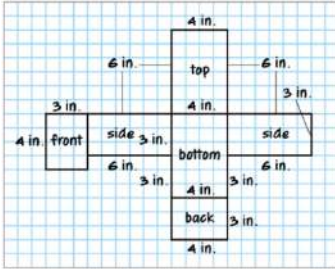
A	300 in^3	C	375 in^3
B	350 in^3	D	400 in^3

Question 1

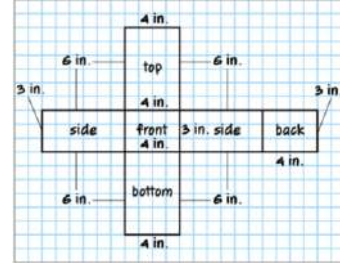
Which of the following nets can be used to represent the figure below?



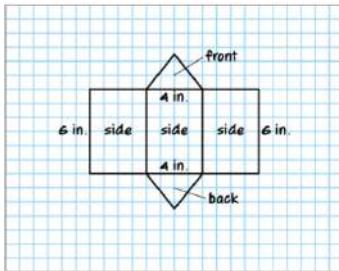
A



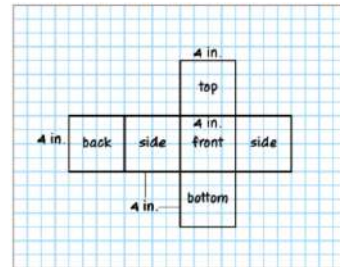
C



B

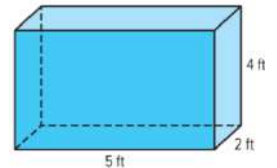


D

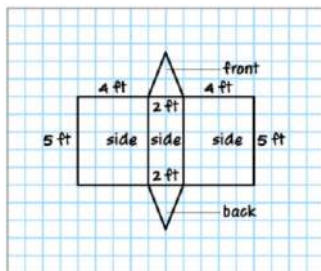


Question 2

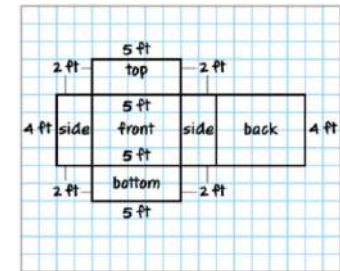
Which of the following nets can be used to represent the figure below?



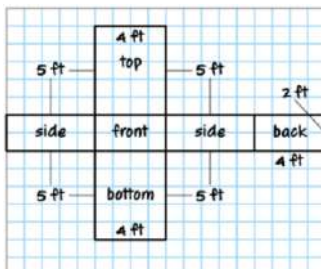
A



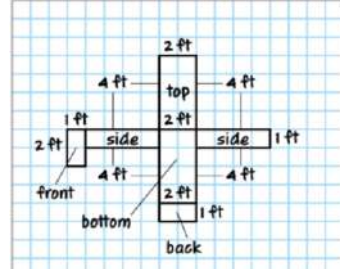
C



B

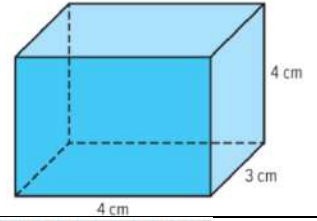


D



Question 3

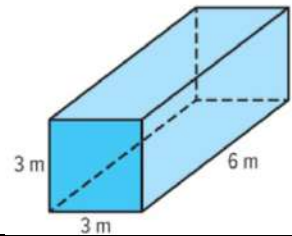
Which of the following nets can be used to represent the figure below?



A		C	
B		D	

Question 4

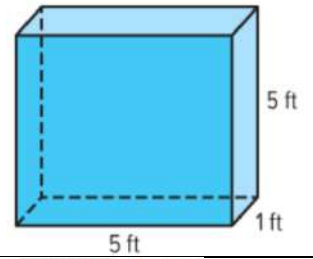
Which of the following nets can be used to represent the figure below?



A		C	
B		D	

Question 5

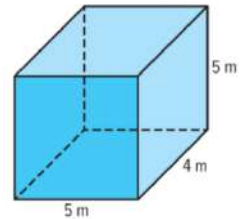
Which of the following nets can be used to represent the figure below?



A		C	
B		D	

Question 6

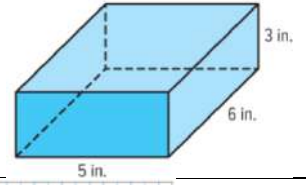
Which of the following nets can be used to represent the figure below?



A		C	
B		D	

Question 7

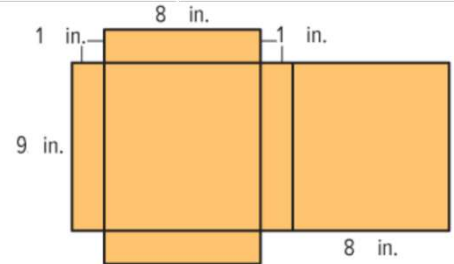
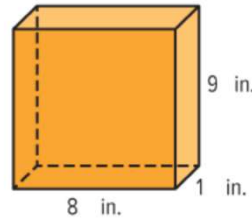
Which of the following nets can be used to represent the figure below?



A		C	
B		D	

Question 8

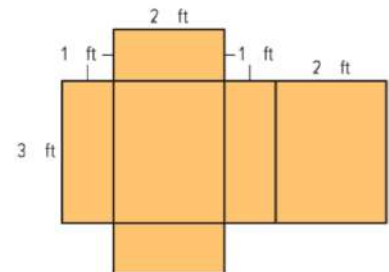
Jason is using cardboard to construct a box to store his trading cards. The box is shaped like a rectangular prism. Use the net to determine the minimum amount of cardboard he will need to construct the box.



A	160 in ²	C	196 in ²
B	178 in ²	D	214 in ²

Question 9

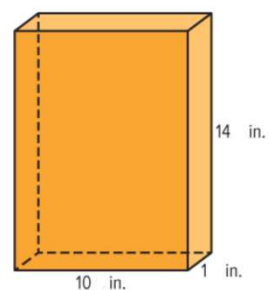
Charlotte is using wood to construct a podium that is shaped like a rectangular prism. Use the net to determine the minimum amount of wood she will need to construct the podium.



A	18 ft ²	C	22 ft ²
B	20 ft ²	D	24 ft ²

Question 10

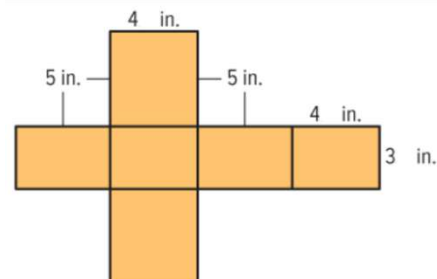
Savannah is using cardboard to construct a package that is shaped like a rectangular prism in which to mail her paintings. Use the net to determine the minimum amount of cardboard she will need to construct the package



A		308 in ²	C		328 in ²
B		318 in ²	D		338 in ²

Question 11

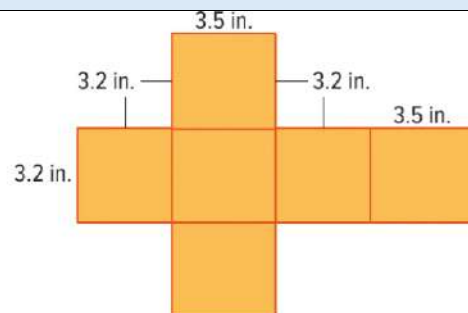
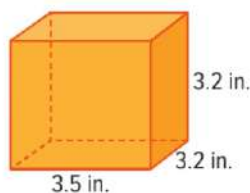
Ricardo is using sheet metal to construct a box that is shaped like a rectangular prism. Use the net to determine the minimum amount of sheet metal he will need to construct the box.



A		84 in ²	C		98 in ²
B		90 in ²	D		94 in ²

Question 12

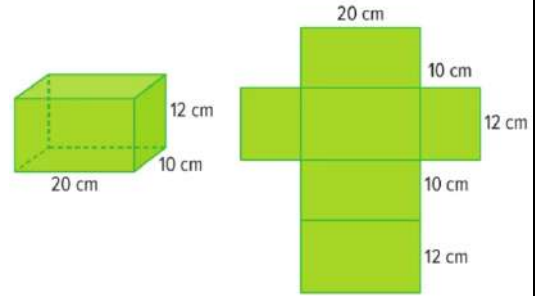
Trey is using cardboard to construct building blocks that are shaped like rectangular prisms. Use the net to determine the minimum amount of cardboard he will need to construct one block.



A		67.38 in ²	C		86.08 in ²
B		73.60 in ²	D		98.40 in ²

Question 13

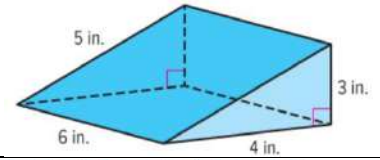
Cody is painting the box shown for part of his art project. If he paints all of the surfaces, how many square centimeters will he paint? Use the net to find the surface area of the rectangular prism.



A	880 cm ²	C	1280 cm ²
B	1120 cm ²	D	1600 cm ²

Question 1

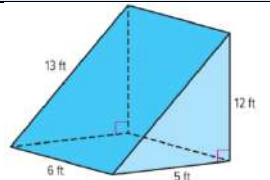
Which of the following nets can be used to represent the triangular prism below?



A			C		
B			D		

Question 2

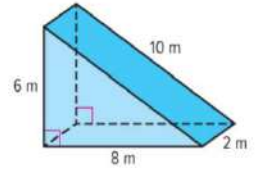
Which of the following nets can be used to represent the triangular prism below?



A			C		
B			D		

Question 3

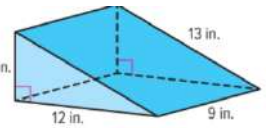
Which of the following nets can be used to represent the triangular prism below?



A		C
B		D

Question 4

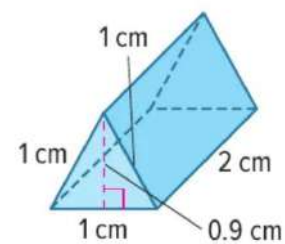
Which of the following nets can be used to represent the triangular prism below?



A		C
B		D

Question 5

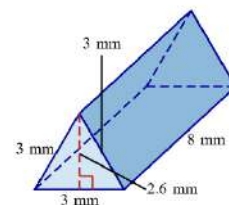
Which of the following nets can be used to represent the triangular prism below?



A			C	
B			D	

Question 6

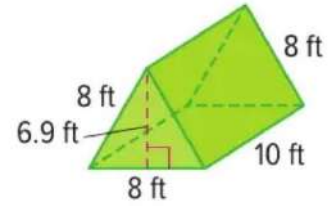
Which of the following nets can be used to represent the triangular prism below?



A			C	
B			D	

Question 7

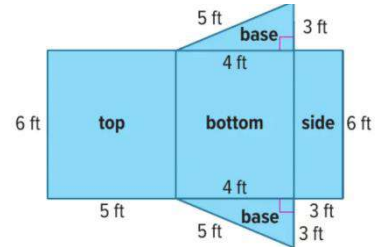
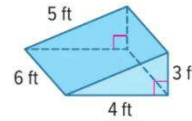
Which of the following nets can be used to represent the triangular prism below?



A		C	
B		D	

Question 8

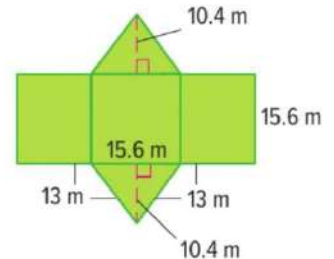
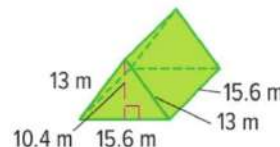
Use the net to find the surface area of the triangular prism.



A	72 ft ²	C	84 ft ²
B	78 ft ²	D	96 ft ²

Question 9

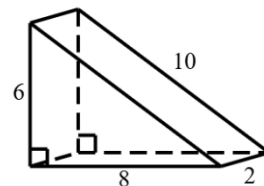
Use the net to find the surface area of the triangular prism in square meters.



A	648.96 m ²	C	730.08 m ²
B	689.52 m ²	D	811.20 m ²

Question 10

What is the surface area of the triangular prism shown?



A 72 square units

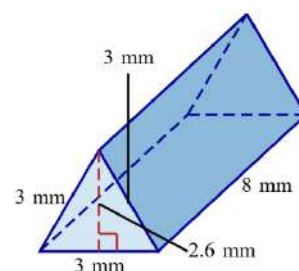
C 96 square units

B 84 square units

D 108 square units

Question 11

What is the surface area of the triangular prism shown?



A 72 mm^2

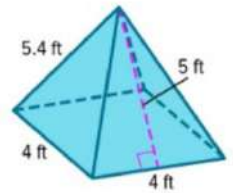
C 79.8 mm^2

B 85.2 mm^2

D 93.6 mm^2

Question 1

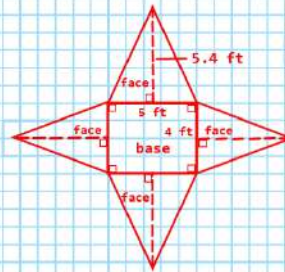
Which of the following nets can be used to represent the triangular pyramid below?



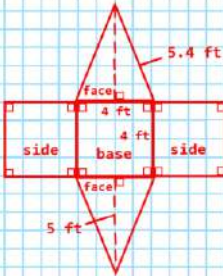
A



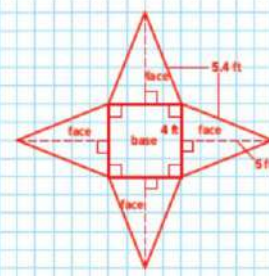
C



B

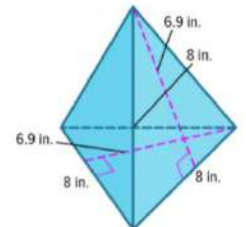


D

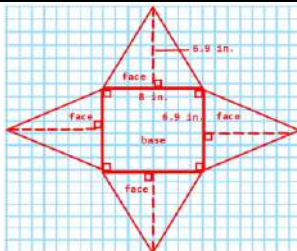


Question 2

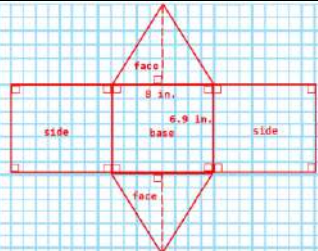
Which of the following nets can be used to represent the triangular pyramid below?



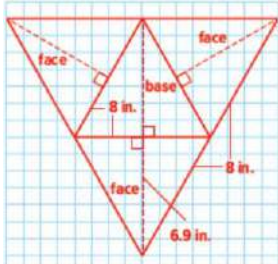
A



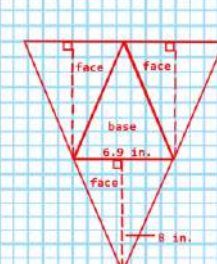
C



B

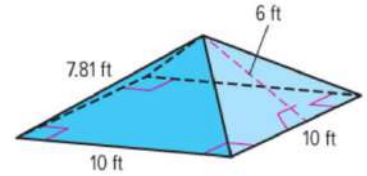


D



Question 3

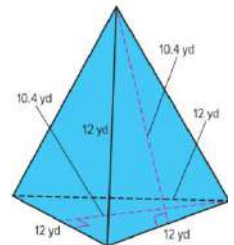
Which of the following nets can be used to represent the triangular pyramid below?



A			C		
B			D		

Question 4

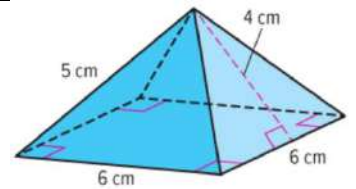
Which of the following nets can be used to represent the triangular pyramid below?



A			C		
B			D		

Question 5

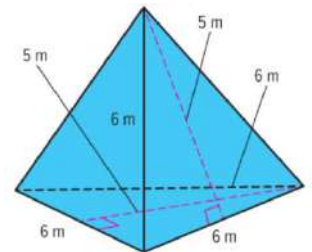
Which of the following nets can be used to represent the triangular pyramid below?



A		C	
B		D	

Question 6

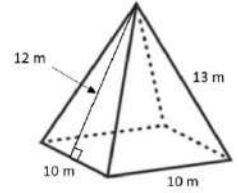
Which of the following nets can be used to represent the triangular pyramid below?



A		C	
B		D	

Question 7

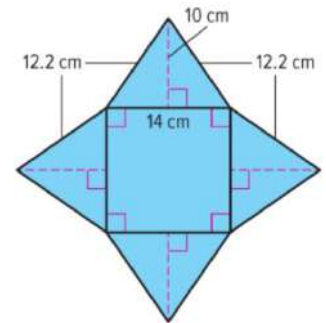
Which of the following nets can be used to represent the triangular pyramid below?



A		C	
B		D	

Question 8

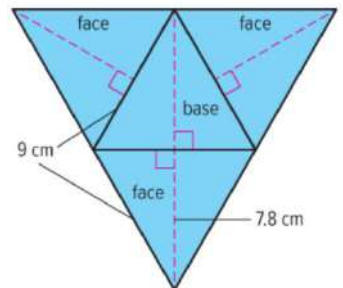
Use the net to find the surface area of the pyramid in square feet.



A	336 cm ²	C	476 cm ²
B	406 cm ²	D	560 cm ²

Question 9

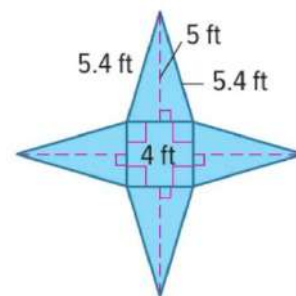
Use the net to find the surface area of the pyramid in square centimeters.



A	140.4 cm ²	C	175.5 cm ²
B	210.6 cm ²	D	245.7 cm ²

Question 10

Use the net to find the surface area of the pyramid in square feet.



A 56 ft^2

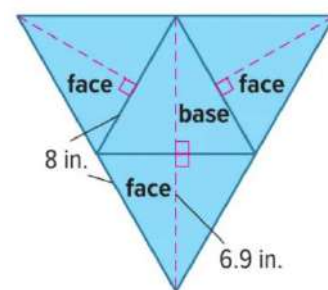
C 72 ft^2

B 64 ft^2

D 80 ft^2

Question 11

Use the net to find the surface area of the pyramid in square inches.



A 96.0 in^2

C 110.4 in^2

B 103.2 in^2

D 117.6 in^2

17 Understand that a statistical question anticipates a variety of responses.

Example 1

538

1-4

541

Question 1

Which of the following is a statistical question?

A	How many continents are there?	C	How many sporting events did the average student attend last year?
B	In what year was the first World Series?	D	How many states are there in the United States?

Question 2

Which of the following is a statistical question?

A	In what year did Alaska become a state?	C	In what year was the tallest roller coaster built?
B	What is the height of the tallest roller coaster in the world?	D	How many roller coasters are typically found in an amusement park?

Question 3

Which of the following is NOT a statistical question?

A	How many states has the typical middle school student visited?	C	How many sporting events did the average student attend last year?
B	In how many states has the typical adult in your neighborhood lived?	D	How many states are there in the United States?

Question 4

Which of the following is NOT a statistical question?

A	How many roller coasters are typically found in an amusement park?	C	What is the height of the tallest roller coaster in the world?
B	On average, how many roller coasters does the typical middle school student ride each summer?	D	How many continents has the average student visited?

Question 5

Which of the following is a statistical question?

A	How many continents are there?	C	In what year was the first World Series?
B	How many continents has the average student visited?	D	How many states are there in the United States?

Question 6

Which of the following is a statistical question?

A	What is the height of the tallest roller coaster in the world?	C	On average, how many roller coasters does the typical middle school student ride each summer?
B	In what year was the tallest roller coaster built?	D	In what year did Alaska become a state?

Question 7

How many states has the typical middle school student visited?

A	How many states has the typical middle school student visited?	C	In what year did Alaska become a state?
B	How many sporting events did the average student attend last year?	D	How many roller coasters are typically found in an amusement park?

Question 8

No, because it has one fixed answer.

A	Yes, because it anticipates variability in the data.	C	Yes, because everyone will have the same answer.
B	No, because it asks about continents.	D	No, because it has one fixed answer.

Question 1

Students were asked, "How many siblings do you have?" Responses: 1, 4, 2, 3, 0, 1, 0, 5, 1, 2, 2, 3, 0, 1, 2, 0, 1, 1, 6, 2 Which table correctly organizes the data?

A			Number of Siblings	Number of Responses	C			Number of Siblings	Number of Responses
			0-1	10				0-1	10
			2-3	7				2-3	6
			4-5	2				4-5	2
B			6 or more	1	D			6 or more	1
			Number of Siblings	Number of Responses				Number of Siblings	Number of Responses
			0-1	11				0-1	11
			2-3	7				2-3	7
			4-5	2				4-5	1
			6 or more	1				6 or more	1
			Number of Siblings	Number of Responses				Number of Siblings	Number of Responses
			0-1	11				0-1	11

Question 2

Students were asked, "How many toppings do you like on an ice cream sundae?" Responses: 2, 3, 7, 4, 5, 5, 4, 4, 1, 2, 4, 3, 4, 3, 6, 0, 4, 5, 6, 5 Which table correctly organizes the data?

A			Number of Toppings	Number of Responses	C			Number of Toppings	Number of Responses
			0-1	3				0-1	2
			2-3	5				2-3	6
			4-5	9				4-5	9
B			6 or more	3	D			6 or more	3
			umber of Toppings	Number of Responses				umber of Toppings	Number of Responses
			0-1	2				0-1	2
			2-3	5				2-3	5
			4-5	10				4-5	10
			6 or more	4				6 or more	3
			umber of Toppings	Number of Responses				umber of Toppings	Number of Responses
			0-1	2				0-1	2

Question 3

Students were asked, "How many sports do you play?" Responses: 2, 2, 1, 3, 1, 2, 4, 1, 2, 1, 3, 2, 2, 2 Which table correctly organizes the data?

A			Number of Sports	Number of Responses	C			Number of Sports	Number of Responses
			1	4				1	4
			2	7				2	7
			3	3				3	2
B			4	1	D			4	1
			Number of Sports	Number of Responses				Number of Sports	Number of Responses
			1	5				1	4
			2	6				2	6
			3	2				3	3
			4	1				4	1
			Number of Sports	Number of Responses				Number of Sports	Number of Responses
			1	5				1	4

Question 4

The table below shows the results of a survey asking students, "How many siblings do you have?" Which conclusion is best supported by the data?

Number of Siblings	Number of Responses
0–1	10
2–3	7
4–5	2
6 or more	1

A	The same number of students have 0–1 siblings and 2–3 siblings.	C	Half of the students have 2–3 siblings.
B	More students have 6 or more siblings than 4–5 siblings.	D	Half of the students have 0–1 siblings

Question 5

The table below shows the results of a survey asking students, "How many toppings do you like on an ice cream sundae?"

Number of Toppings	Number of Responses
0–1	2
2–3	5
4–5	10
6 or more	3

A	Most students prefer 0–1 toppings.	C	More students chose 6 or more toppings than 4–5 toppings.
B	Half of the students prefer 4–5 toppings.	D	Equal numbers of students chose 2–3 toppings and 4–5 toppings.

Question 6

The table below shows the results of a survey asking students, "How many sports do you play?" Which conclusion is best supported by the data?

Number of Sports	Number of Responses
1	4
2	7
3	2
4	1

A	Half of the students play 2 sports.	C	The same number of students play 1 sport and 2 sports.
B	Most students play 4 sports.	D	More students play 3 sports than 2 sports.

Question 7

Which conclusion is best supported by the data?

Favorite Season	Frequency
Spring	28
Summer	42
Fall	15
Winter	29

A	One more person chose Winter over Spring.	C	A total of 100 people responded to the survey.
B	More people responded Summer than Fall and Winter combined.	D	More than half of the people chose Summer.

Question 8

Which statement is true about the data collected?

Points Scored on Quiz	Students
10	4
9	6
8	9
7	4
6	2

A

25 students took the quiz.

C

Most students scored 8 than scored 9 or 10.

B

One more student scored 6 or 7 than scored 10.

D

Over half of the students scored 9 or 10.

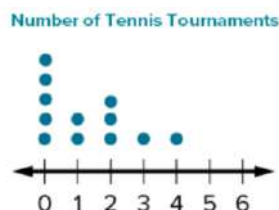
Question 1

Chris surveyed the members of his tennis team by asking the question *in how many tennis tournaments have you played?* The results are shown in the table. Which dot plot accurately represents the data?

Number of Tennis Tournaments

0	2	1	4	0	1
1	0	3	2	6	0

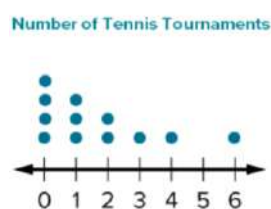
A



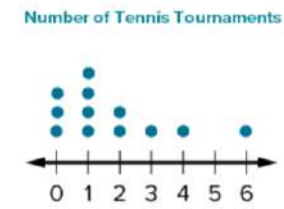
C



B

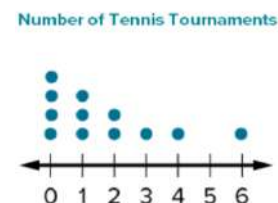


D



Question 2

Which statement best describes the results of Chris's survey shown in the dot plot?



A

Chris surveyed 12 players. The fewest tournaments played was 0, and the most was 6. Most players played in 2 or fewer tournaments.

C

Chris surveyed 10 players. The fewest tournaments played was 1, and the most was 6. Most players played in 3 or more tournaments.

B

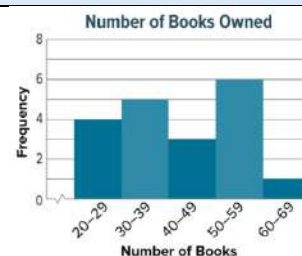
Chris surveyed 12 players. The fewest tournaments played was 0, and the most was 4. Most players played in 4 or more tournaments.

D

Chris surveyed 12 players. The fewest tournaments played was 0, and the most was 6. Most players played in 4 or more tournaments.

Question 3

Select the data set that can be represented by the histogram shown.



A

20, 20, 21, 23, 25, 34, 34, 34, 35, 38, 39, 42, 44, 50, 50, 50, 51, 52, 57

C

20, 21, 23, 25, 34, 35, 36, 38, 39, 42, 44, 48, 50, 50, 50, 51, 52, 57, 65

B

20, 21, 23, 25, 34, 35, 36, 38, 39, 40, 41, 42, 42, 44, 48, 50, 51, 52, 65

D

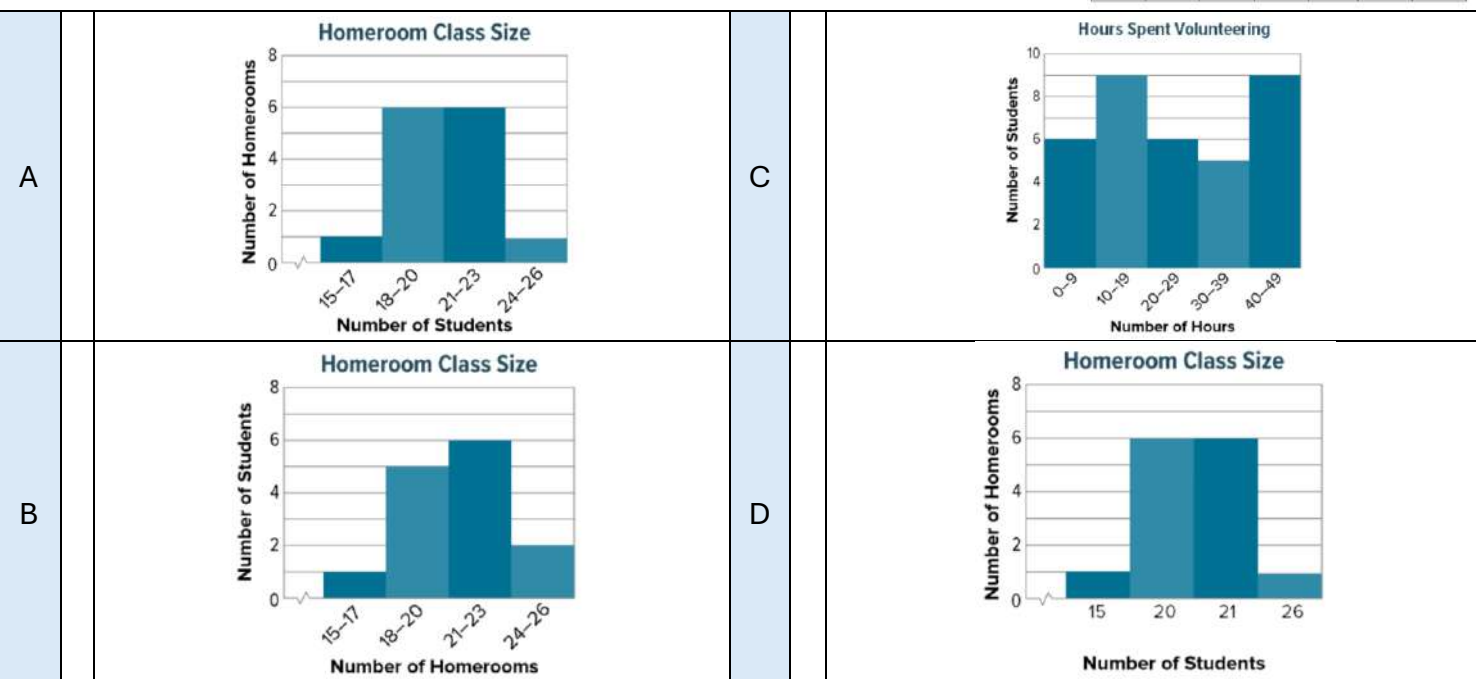
21, 23, 25, 35, 36, 38, 39, 39, 42, 44, 48, 50, 50, 50, 51, 52, 57, 60, 65

Question 4

The table shows the results of asking a group of teachers the question *How many students are in your homeroom?*

Which of the following histograms accurately represents the data?

Homeroom Class Size						
17	26	20	23	19	23	22
22	24	19	20	21	20	23

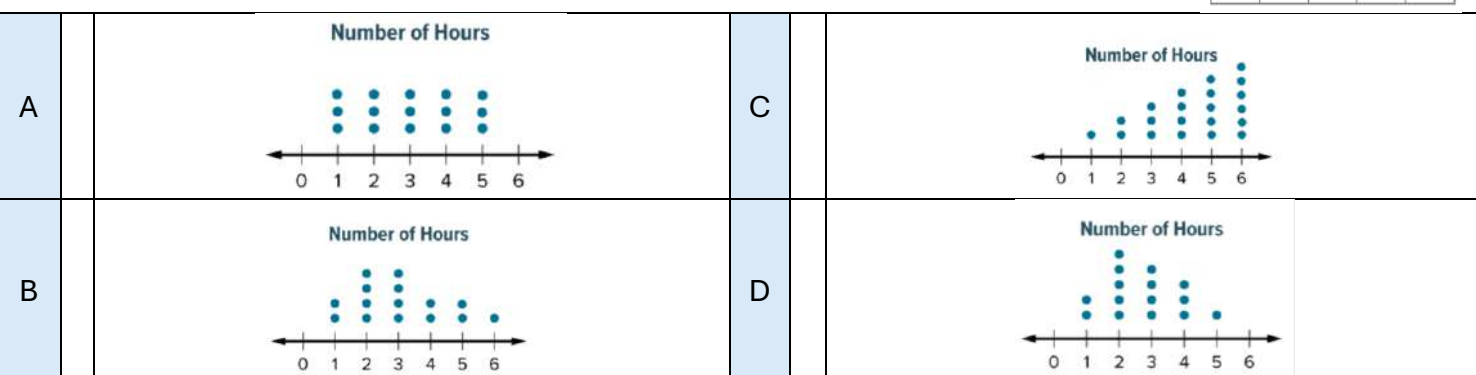


Question 5

Petra surveyed the members of her dance class by asking the question *How many hours outside of class do you usually practice dance each week?*. The results are shown in the table.

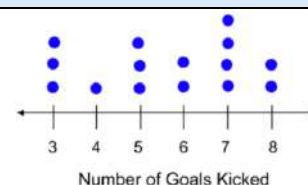
Which of the following dot plots accurately represents the data?

Number of Hours				
1	3	4	5	2
2	2	4	3	1
3	3	2	4	2



Question 6

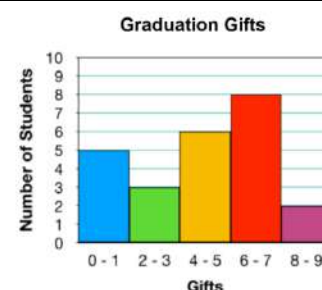
The line plot shows the number of goals kicked by 15 players during practice. Describe the data.



A	The most popular number of goals kicked was 7 goals.	C	The most popular number of goals kicked was 8 goals.
B	The least popular number of goals kicked was 3 goals.	D	The most popular number of goals kicked was 6 goals.

Question 7

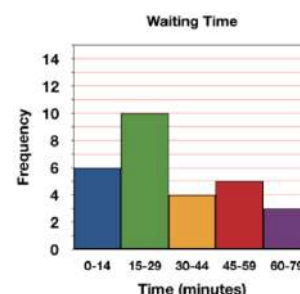
The histogram shows the number of gifts students received for their graduation. Which interval shows the most popular number of gifts?



A	2-3	C	8-9
B	6-7	D	0-1

Question 8

The histogram shows the waiting times, in minutes, for patients at an accident and emergency department for one evening. Choose the correct statement that describes the histogram.



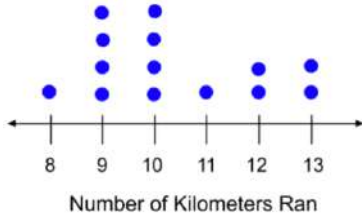
A	The total number of patients is 28. Most of the patients waited between 60-29 minutes.	C	The total number of patients is 28. Most of the patients waited between 15-29 minutes.
B	The total number of patients is 32. Most of the patients waited between 15-29 minutes.	D	The total number of patients is 30. Most of the patients waited between 15-29 minutes.

Question 9

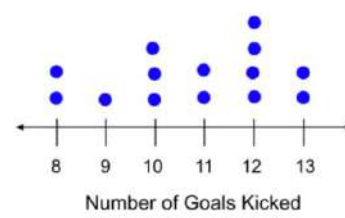
Coach Hamdan asked his players how many kilometers they run per week. The results are shown in the table. Select the dot plot that best represents the data.

Number of Kilometers Ran				
8	10	12	13	9
9	9	13	10	10
8	8	12	9	13

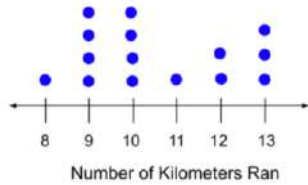
A



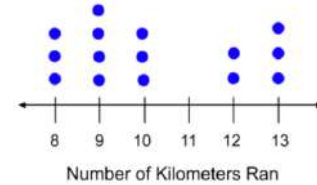
C



B



D

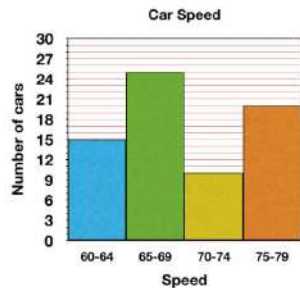


Question 10

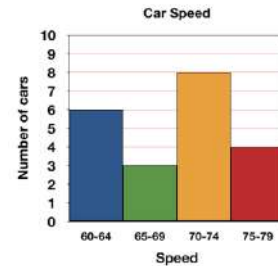
The table gives some information about the speeds, in km/h, of cars. Which histogram correctly displays the following frequency table?

Interval	Frequency
60 - 64	2
65 - 69	5
70 - 74	7
75 - 79	4

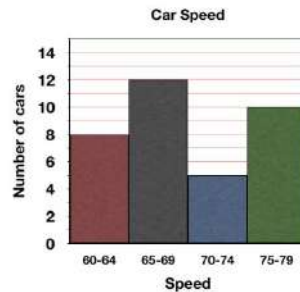
A



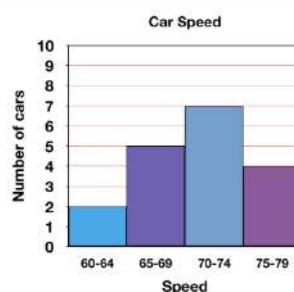
C



B

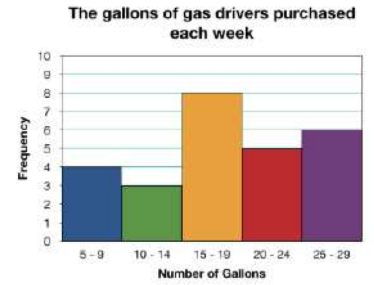


D



Question 11

The histogram shows the gallons of gas drivers purchased each week. How many drivers are represented in this histogram?



A 21 drivers

C 26 drivers

B 20 drivers

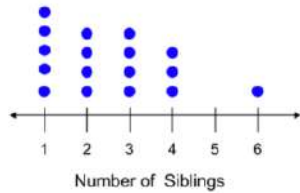
D 7 drivers

Question 12

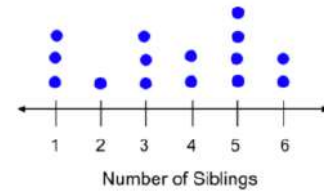
Ahmed asked his class how many siblings they have. The results are shown in the table. Select the line plot that best represents the data.

Number of Siblings	Frequency
1	5
2	4
3	4
4	3
5	0
6	1

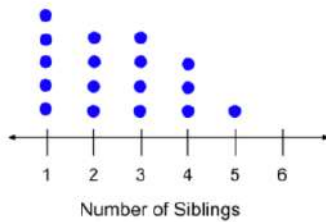
A



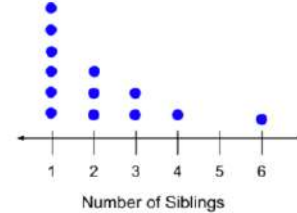
C



B



D



Question 1

The number of cans collected over the weekend by each sixth grade homeroom was 57, 59, 60, 58, 58, and 56 cans. Find the mean number of cans collected.

A	57 cans	C	59 cans
B	58 cans	D	60 cans

Question 2

Grace and her friends are comparing the number of pets they own. They have 1, 2, 0, 5, 1, 1, and 4 pets. Find the mean number of pets owned.

A	1.5 pets	C	2.5 pets
B	2 pets	D	3 pets

Question 3

The amount Lucy earned babysitting each month for the past five months was \$225, \$280, \$240, \$180, and \$200. Suppose the mean for six months was \$220. How much did Lucy earn babysitting during the sixth month?

A	\$175	C	\$200
B	\$195	D	\$195

Question 4

The average high temperature last week was 65°F. The high temperatures for Sunday through Friday were 68°F, 70°F, 73°F, 45°F, 68°F, and 71°F. What was the high temperature on Saturday?

A	60°F	C	62°F
B	61°F	D	64°F

Question 5

What is the mean of the data?

{55, 57, 64, 51, 55, 52, 58, 62, 60, 58}

A	55	C	58
B	57.2	D	57.5

Question 6

The mean of four numbers is 4. The known values are 1, 2, and 4. What is the missing value?

A		7	C		11
B		6	D		9

Question 1

The table shows the number of e-mails sent in one day. What is the median number of e-mails sent per day?

Number of E-mails Sent Per Day						
20	24	22	27	21	27	20
27	22	23	20	22	24	26
23	26	27	22	27	20	25

A		22	C		24
B		23	D		25

Question 2

The table shows the number of points scored by a basketball team in each game last season. What is the median number of points scored?

Number of Points					
64	41	52	63	44	54
42	67	44	68	43	61

A		48	C		53
B		49	D		54

Question 3

The table shows the number of students in each group on a school field trip. What is the median group size?

Number of Students in Each Group				
5	7	8	7	6
4	4	5	6	9
7	5	7	8	6
9	7	5	4	5

A		5	C		7
B		6	D		8

Question 4

The number of points Seth earned while playing his favourite game is shown. What is the median of the data? 40, 28, 24, 37, 43, 26, 30, 36

A		29	C		33
B		30	D		34

Question 1

What is the range of the data set? {2, 4, 5, 7, 8, 10}

A		6	C		10
B		8	D		12

Question 2

Which expression represents the range of a data set?

A		Greatest value + least value	C		Sum of all values ÷ number of values
B		Greatest value – least value	D		Middle value

Question 3

Which data set has the greatest variability?

A		{4, 5, 5, 6}	C		{1, 5, 9, 13}
B		{10, 12, 14, 16}	D		{7, 7, 8, 8}

Question 4

In a data set, what is Q_1 ?

A		The greatest value	C		The median of the upper half
B		The median of the lower half of the data	D		The range

Question 5

What is another name for Q_2 ?

A		Range	C		Median
B		Mean	D		Mode

Question 6

What is Q_3 ?

A		Median of the lower half	C		Median of the upper half of the data
B		Median of the entire data set	D		Greatest value

Question 7

Find Q_1 for the data set: {2, 1, 5, 4, 3, 8, 7, 6}

A		2.5	C		4.5
B		3	D		6.5

Question 8

Find Q_3 for the data set: {2, 1, 5, 4, 3, 8, 7, 6}

A		2.5	C		6.5
B		4.5	D		8

Question 9

The first quartile is 12 and the third quartile is 25. What is the interquartile range?

A		13	C		12
B		37	D		25

Question 10

Data Set A has a range of 5. Data Set B has a range of 12. Which statement is true?

A		Data Set A is more spread out.	C		Both have the same spread.
B		Data Set B is more spread out.	D		Cannot be determined.

Question 11

Which data set has less variability?

A		Range = 18	C		Range = 15
B		Range = 3	D		Range = 10

Question 12

Data Set A has an IQR of 3. Data Set B has an IQR of 8. Which statement is true?

A		Data Set A has greater variability.	C		Both have the same variability.
B		Data Set B has greater variability.	D		Neither has variability.

Question 13

Which data set has the least variability in its middle 50%?

A	IQR = 12	C	IQR = 5
B	IQR = 8	D	IQR = 2

Question 14

A data set has: Range = 3 ,IQR = 1 Which statement best describes the data?

A	The data are tightly clustered.	C	The data have no median.
B	The data are highly spread out.	D	The data have no quartiles.

Question 15

What is the range of the data set? {70, 38, 21, 85, 13, 41, 29, 20, 65}

A	42	C	72
B	38	D	85

Question 16

The table shows the number of hours different animals spend sleeping each day. Which statement correctly describes the variability of the data?

Time Animals Spend Sleeping (h)					
12	20	16	11	4	2

A	The data vary by a range of 18 hours and the middle half of the data vary by 12 hours.	C	The data vary by a range of 18 hours and the middle half of the data vary by 14 hours.
B	The data vary by a range of 20 hours and the middle half of the data vary by 14 hours.	D	The data vary by a range of 16 hours and the middle half of the data vary by 10 hours.

Question 17

The heights, in centimeters, of 11 students are shown. {144, 135, 151, 142, 142, 139, 156, 130, 137, 145, 148} What are the range and interquartile range (IQR) of the heights?

A	Range = 21 cm; IQR = 10 cm	C	Range = 26 cm; IQR = 13 cm
B	Range = 26 cm; IQR = 11 cm	D	Range = 24 cm; IQR = 11 cm

Question 1

The table shows the number of sunny days in various U.S. cities in the last month. Find the mean absolute deviation. Explain what the mean absolute deviation represents.

Number of Sunny Days in Various Cities Last Month

15	27	10	19
24	21	28	16

A	4; On average, the number of sunny days differs from the mean by about 4 days.	C	6; On average, the number of sunny days differs from the mean by about 6 days.
B	5; On average, the number of sunny days differs from the mean by about 5 days.	D	8; On average, the number of sunny days differs from the mean by about 8 days.

Question 2

The table shows the number of flowers sold by each sixth-grade homeroom. Find the mean absolute deviation. Explain what the mean absolute deviation represents.

Number of Flowers Sold

75	89	80	145	85
60	92	104	90	100

A	12.4; On average, the number of flowers sold differs from the mean by about 12.4 flowers.	C	16.2; On average, the number of flowers sold differs from the mean by about 16.2 flowers.
B	14.6; On average, the number of flowers sold differs from the mean by about 14.6 flowers.	D	18.5; On average, the number of flowers sold differs from the mean by about 18.5 flowers.

Question 3

The table shows the number of wins of two school baseball teams over the last five years. Find the mean absolute deviation for each team. Then compare the variations

Number of Wins Per Season

Bears	7	10	13	12	9
Saints	12	15	10	14	13

A	Bears: 1.84, Saints: 1.44; The Bears have greater variation.	C	Bears: 2.40, Saints: 2.40; The teams have the same variation.
B	Bears: 1.44, Saints: 1.84; The Saints have greater variation.	D	Bears: 3.20, Saints: 1.20; The Bears have greater variation.

Question 4

The table shows the number of canned goods each homeroom collected over seven days. Find the mean absolute deviation. Then compare the variations. Round to the nearest hundredth, if necessary.

Number of Canned Goods Collected

Room 101	57	52	40	42	37	54	47
Room 102	51	17	42	40	46	74	31

A	Room 101: 6.29, Room 102: 12.00; Room 102 has greater variation.	C	Room 101: 7.00, Room 102: 7.00; The rooms have the same variation.
B	Room 101: 12.00, Room 102: 6.29; Room 101 has greater variation.	D	Room 101: 5.50, Room 102: 10.00; Room 101 has greater variation.

Question 5

The table shows the number of calories per serving of different snacks. What is the mean absolute deviation of the data set? Round to the nearest hundredth, if necessary.

Number of Calories					
61	42	52	27	35	23

A		10.67	C		12.50
B		11.67	D		13.33

Question 1

Last week, Joakim spent 40, 25, 60, 30, 35, and 40 minutes practicing the piano. Identify any outliers in the data.

A	25	C	40
B	60	D	There are no outliers.

Question 2

Last month, a basketball team scored 83, 84, 85, 87, 89, 88, 67, 79, and 81 points in their games. Identify any outliers in the data.

A	67	C	89
B	79	D	There are no outliers.

Question 3

Abrianna sold 20, 23, 18, 4, 17, 21, 15, and 56 boxes of cookies after different football games. Identify any outliers in the data.

A	4 only	C	4 and 56
B	56 only	D	There are no outliers.

Question 4

Last week a certain pet store had 52, 72, 96, 21, 58, 40, and 75 paying customers. Identify any outliers in the data.

A	21 only	C	21 and 96
B	96 only	D	There are no outliers.

Question 5

The prices of trees that Sahana bought are \$46, \$39, \$40, \$45, \$44, \$68, and \$51. Calculate the mean and median with and without the outlier. Round to the nearest tenth, if necessary. Choose the measure that best describes the center.

A	With the outlier: mean = 47.6, median = 45; without the outlier: mean = 44.2, median = 44.5. The median best describes the center.	C	With the outlier: mean = 50.0, median = 45; without the outlier: mean = 46.0, median = 44.0. The median best describes the center.
B	With the outlier: mean = 45, median = 47.6; without the outlier: mean = 44.5, median = 44.2. The mean best describes the center.	D	With the outlier: mean = 44.2, median = 44.5; without the outlier: mean = 47.6, median = 45. The mean best describes the center.

Question 6

The prices of backpacks are \$37, \$43, \$41, \$36, \$44, and \$70. Calculate the mean and median with and without the outlier. Round to the nearest tenth, if necessary. Choose the measure that best describes the center.

A	With the outlier: mean = 42, median = 45.2; without the outlier: mean = 41, median = 40.2. The mean best describes the center.	C	With the outlier: mean = 50.2, median = 44; without the outlier: mean = 40.2, median = 41. The mean best describes the center.
B	With the outlier: mean = 40.2, median = 41; without the outlier: mean = 45.2, median = 42. The median best describes the center.	D	With the outlier: mean = 45.2, median = 42; without the outlier: mean = 40.2, median = 41. The median best describes the center.

Question 7

The table shows the number of points scored by a football team. Calculate the mean and median with and without the outlier. Round to the nearest tenth, if necessary. Choose the measure that best describes the center.

Points Scored by a Football Team			
14	20	3	9
18	35	21	24
7	12	31	68

A	With the outlier: mean = 21.8, median = 19; without the outlier: mean = 17.6, median = 18. The median best describes the center.	C	With the outlier: mean = 24, median = 20; without the outlier: mean = 18, median = 19. The mean best describes the center.
B	With the outlier: mean = 19, median = 21.8; without the outlier: mean = 18, median = 17.6. The mean best describes the center.	D	With the outlier: mean = 17.6, median = 18; without the outlier: mean = 21.8, median = 19. The median best describes the center.

25 Display a numerical data set in a box plot and summarize the data.

Example 2

564

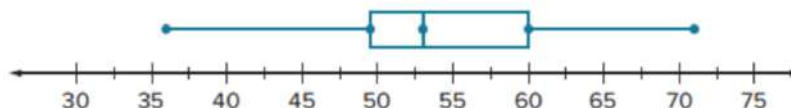
1-5

567

Question 1

The box plot shows the ages of vice presidents when they took office. Which statement best describes the distribution of the data?

Ages of US Vice Presidents



A

The ages range from about 49 years to 60 years. The middle 50% of the ages range from about 36 years to 71 years. There is more variation among the middle half of the data than in the whiskers.

C

The ages range from about 49 years to 60 years. The middle 50% of the ages range from about 36 years to 71 years. There is less variation among the whiskers than among the middle half of the data.

B

The ages range from about 36 years to 71 years. The middle 50% of the ages range from about 49 years to 60 years. Because the box is shorter than the whiskers, there is less variation among the middle half of the data. Having less variation means there is more consistency among the middle 50% of the data than in either whisker.

D

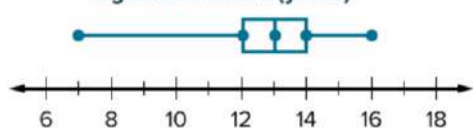
The ages range from about 36 years to 71 years. The middle 50% of the ages range from about 49 years to 60 years. Because the box is longer than the whiskers, there is more variation among the middle half of the data. Having more variation means there is less consistency among the middle 50% of the data than in either whisker.

Question 2

The ages of children taking a hip-hop dance class are 10, 9, 9, 7, 12, 14, 14, 9, and 16 years old. Which of the following box plots accurately represents the data set?

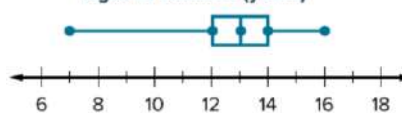
A

Ages of Dancers (years)



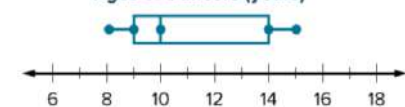
C

Ages of Dancers (years)



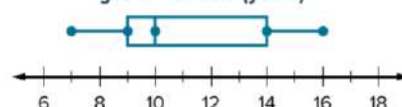
B

Ages of Dancers (years)



D

Ages of Dancers (years)



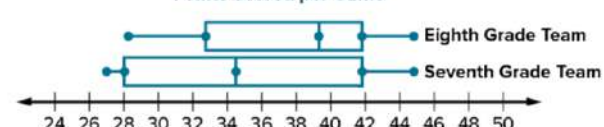
Question 3

Which of the following box plots accurately represents the data set?

Points Scored per Game							
Seventh Grade Team				Eighth Grade Team			
39	36	40	27	34	36	47	40
35	29	36	29	39	38	45	43
31	38	30	34	42	41	45	42

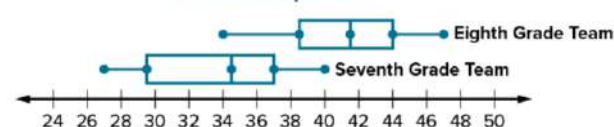
A

Points Scored per Game



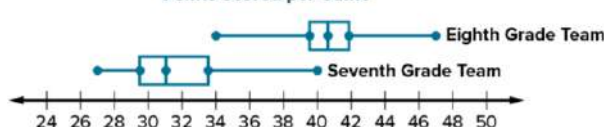
C

Points Scored per Game



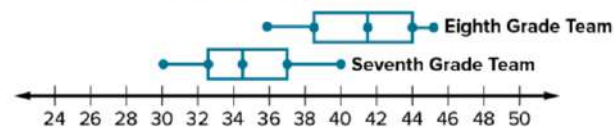
B

Points Scored per Game



D

Points Scored per Game



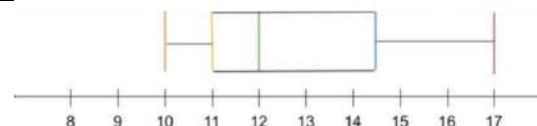
Question 4

A student said that, in a box plot, if the box to the right of the median is longer than the box to the left of the median, there are more data values represented by the longer box. Is the student's reasoning correct?

A	Yes; The more data values there are, the longer the box will be.	C	No; Each section of the box plot represents 25% of the total data values. The length of a section shows the spread of the data, not the number of data values.
B	Yes; If the longer box is to the right of the median, there are more data values. If the longer box is to the left of the median, there are fewer data values.	D	No; Each section of the box plot represents 100% of the total data values, so all sections must have the same length.

Question 5

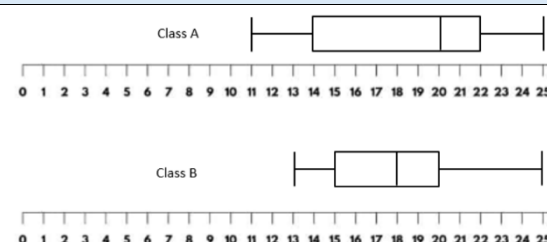
The box plot represents a data set. What is the interquartile range (IQR) of the data?



A	1.5	C	3.5
B	2	D	5

Question 6

The quiz scores for two classes are represented in the box plots. Which statement is true?



A	There is greater variability in quiz scores for Class A because the range and interquartile range are greater than those of Class B.	C	There is greater variability in quiz scores for Class B because the range and interquartile range are less than those of Class A.
B	There is greater variability in quiz scores for Class B because the range and interquartile range are greater than those of Class A.	D	There is greater variability in quiz scores for Class A because the range and interquartile range are less than those of Class B.

Question 7

Which box plot represents the data ? {6, 3, 5, 2, 3, 5, 3, 2, 1, 7, 1, 4}

A		C	
B		D	

Important Notes

Important Notes