

تجميعية أسئلة وفق الهيكل الوزاري منهج ريفيل بدون الحل



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: 2025-05-27 11:55:32

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: أحمد الجبعي

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

ملزمة شاملة وفق الهيكل الوزاري منهج بريدج

1

مراجعة قوانين وأسئلة الكتاب وفق الهيكل الوزاري منهج بريدج

2

حل تجميعية تدريبات شاملة وفق الهيكل الوزاري

3

تجميعية تدريبات شاملة وفق الهيكل الوزاري بدون الحل

4

أساسيات وقوانين الوحدة الثامنة والتاسعة والعاشرة منهج ريفيل

5

أسئلة الهيكل لمادة رياضيات

الصف السادس ريفيل

Reveal

الفصل الدراسي الثالث

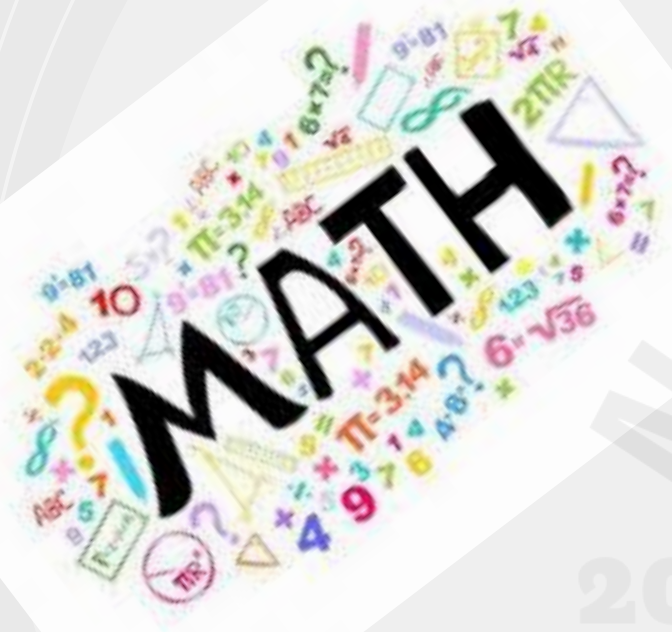
2025-2024

مدرسة العدل ح 2

أ/ احمد الجبعي



وزارة التربية والتعليم
MINISTRY OF EDUCATION

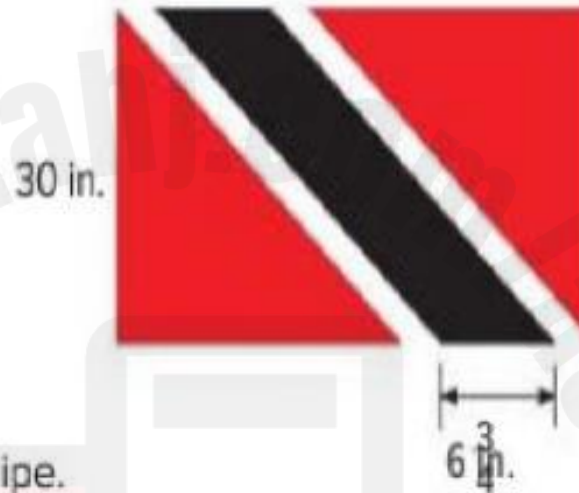


Example 1 Find Area of Parallelograms

Romilla is painting a replica of the national flag of Trinidad and Tobago for a research project.

Find the area of the black stripe.

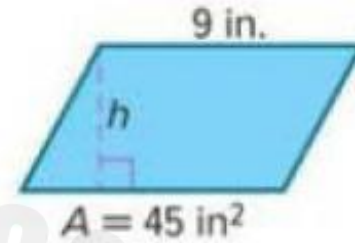
Step 1 Identify the measures of the base and the height of the stripe.



Example 2 Find Missing Dimensions of Parallelograms

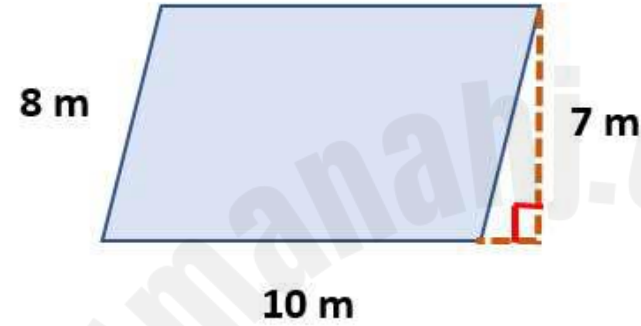
Find the missing dimension of the parallelogram.

Step 1 Identify the given values.



Use the graph below to find the area of the shaded parallelogram.

استخدم الشكل أدناه لإيجاد مساحة متوازي الأضلاع المظلل.



a. 70 m^2



b. 77 m^2



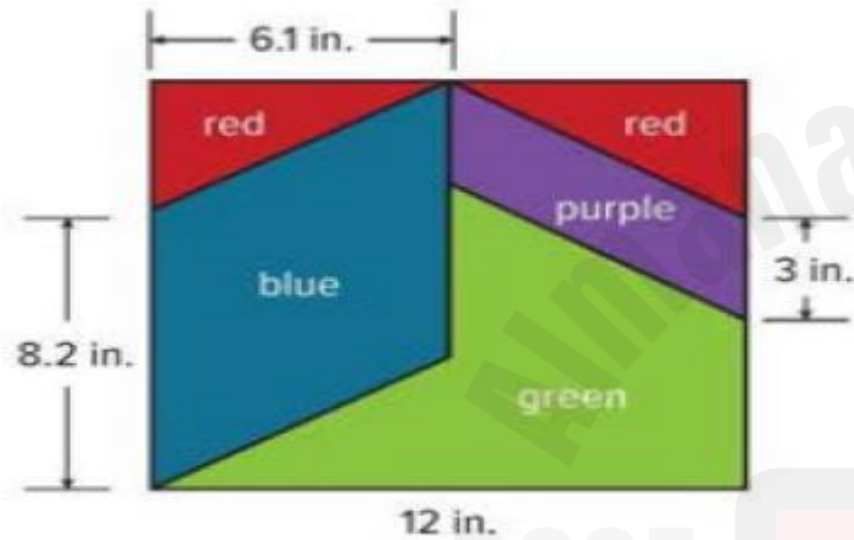
c. 54 m^2



d. 80 m^2



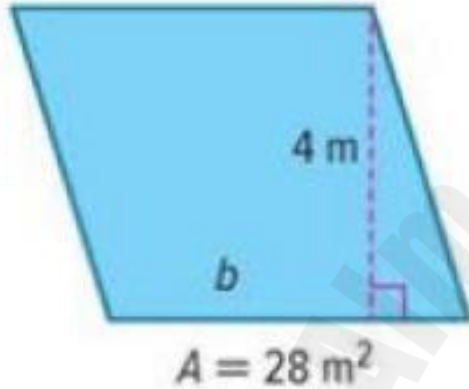
1. The pattern shows the dimensions of a quilting square that Nakida will use to make a quilt. How much blue fabric will she need to make one square? (Example 1)



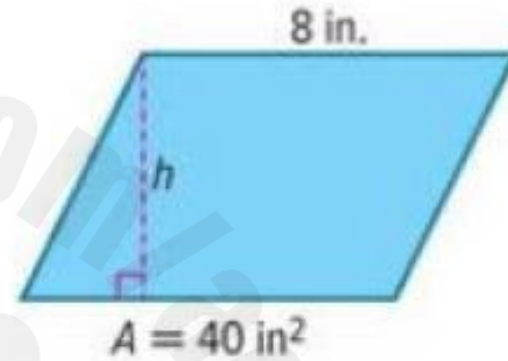
2. A group of students is painting the flag of Brunei for a geography project. Joseph is responsible for painting only the background colors of the flag. How many square inches will he cover with white paint? (Example 1)



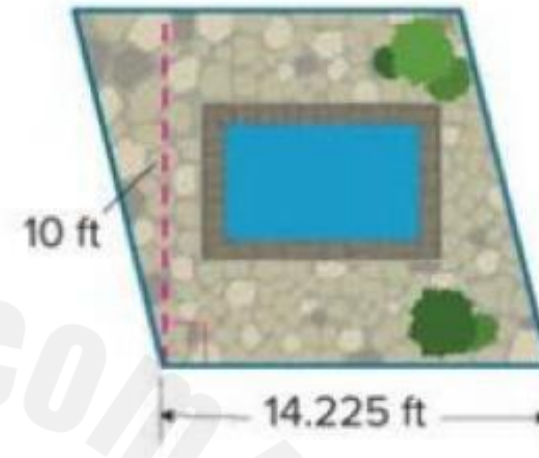
3. Find the missing dimension of the parallelogram. (Example 2)



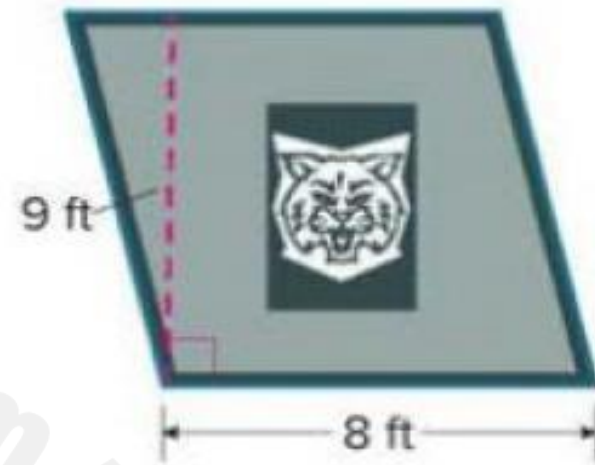
4. Find the missing dimension of the parallelogram. (Example 2)



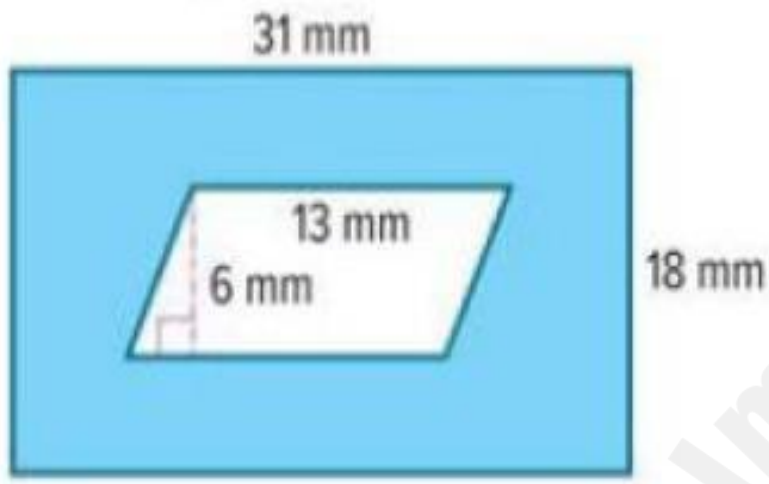
7. Liam is designing a patio and fountain for his backyard. The fountain will cover 50 square feet. The remaining space will be covered with tiles. If one tile covers 2.25 square feet, how many tiles will Liam need?



8. Tara and Veronica are making a parallelogram-shaped banner for a football game. They will paint the entire banner except for a rectangular section where a photo of the school's mascot will be placed. The photo of the mascot has an area of 6 square feet. If a 16-ounce bottle of primer covers 24 square feet, how many bottles of paint will they need?



9. **MP Identify Structure** Find the area of the shaded region.



3	Area of Trapezoids	Example 4 + Check	457
		(1-6)	461
4	Area of Trapezoids	Example 5 + Check	458
		7,8,9	461 & 462

Example 4 Find Area of Trapezoids

Each of the airplane's wings in the drawing is in the shape of a trapezoid.

Find the area of one wing.

Use the area formula for a trapezoid.



Check

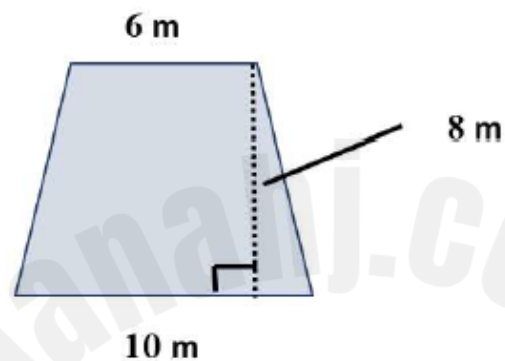
A teacher's small-group table is in the shape of a trapezoid. Find the area of the table.



Show
your work
here

Use the graph below to find the area
of the shaded trapezoid.

استخدم الشكل أدناه لإيجاد مساحة شبه المنحرف
المظلل.



a. 49 m^2



b. 80 m^2



c. 36 m^2

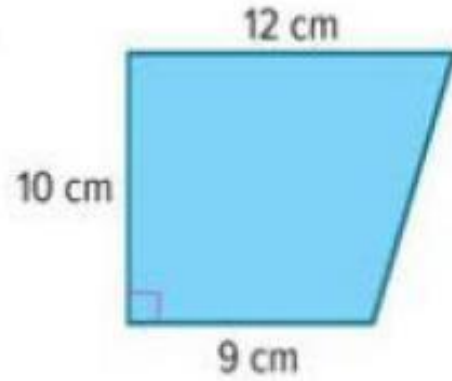


d. 64 m^2

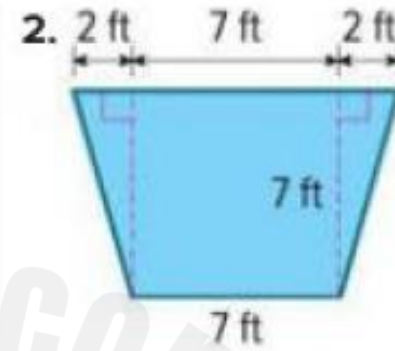


Decompose each trapezoid to find its area. (Example 1)

1.

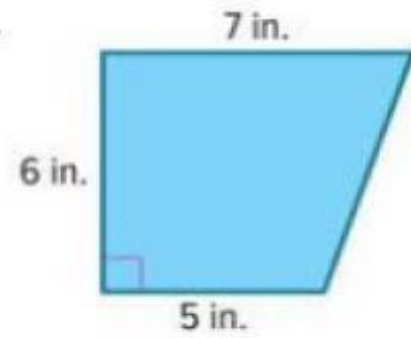


2.



Find the area of each trapezoid. (Example 2)

3.



4.



5. The shape of Arkansas resembles a trapezoid. What is the approximate area of Arkansas? (Example 3)



6. The top of the desk shown is in the shape of a trapezoid. What is the area of the top of the desk? (Example 4)



5	Area of Regular Polygons	Example 1 + Check	464
		(1-4)	467 & 468

Example 1 Find Area of Regular Polygons

A stop sign is shaped like a regular octagon. Each side of the sign is 15 inches long and measures 36 inches between parallel sides.

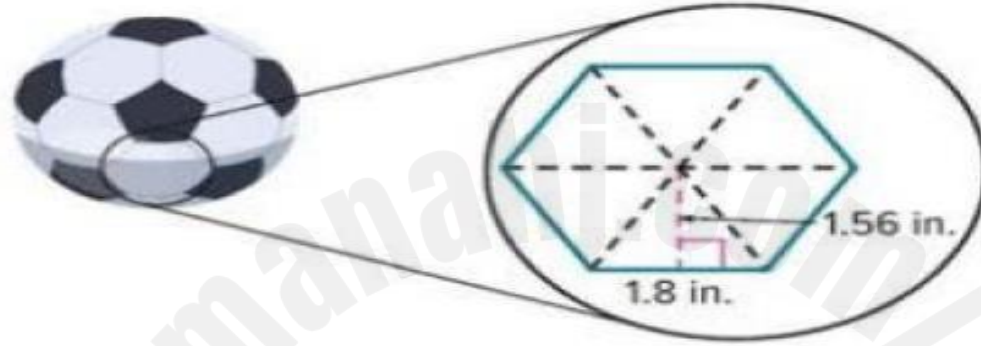
Find the area of the octagon.

Step 1 Decompose the octagon into congruent triangles.



Check

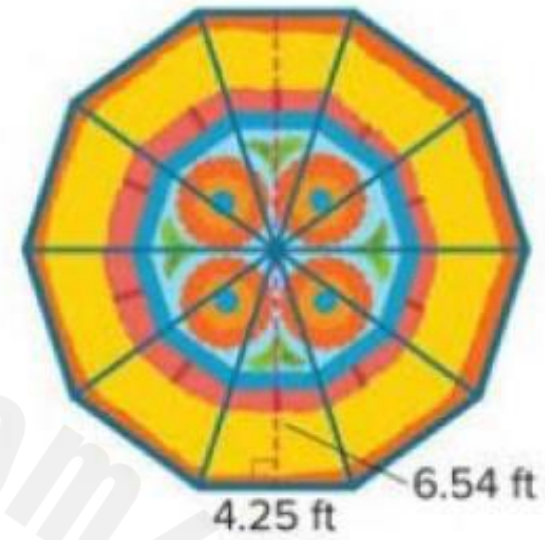
The white section of the soccer ball is a regular hexagon. Each side of the hexagon is 1.8 inches. Find the area of the hexagon. Round to the nearest hundredth.



1. Kendra knitted the coaster shown as a present for her grandmother. The coaster is shaped like a regular hexagon. Each side of the hexagon is 3.5 inches. Find the area of the coaster. Round to the nearest hundredth. (Example 1)

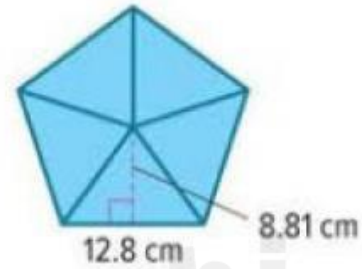


2. Paul bought a new rug in the shape of a regular decagon. Each side of the decagon is 4.25 feet. Find the area of the rug. Round to the nearest hundredth. (Example 1)



Test Practice

3. **Open Response** A regular pentagon is shown.
What is the area of the pentagon?

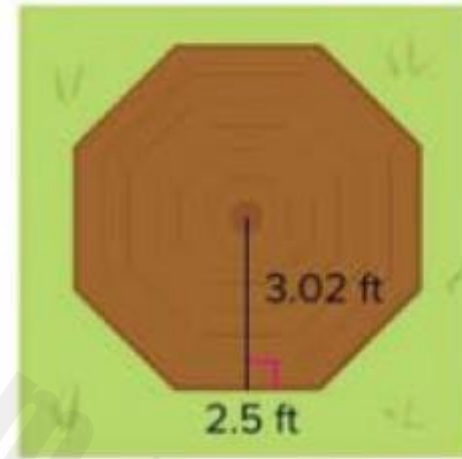


2025

2024

Apply

4. Julian is going to build a picnic table. The top of the picnic table is shaped like an octagon with sides measuring 2.5 feet. If the wood costs \$3.95 per square foot, what is the least he will spend on the top of the picnic table?



6	Volume of Rectangular Prisms	Example 2 + Check	490
		3,4,5,6,9,10	493 & 494

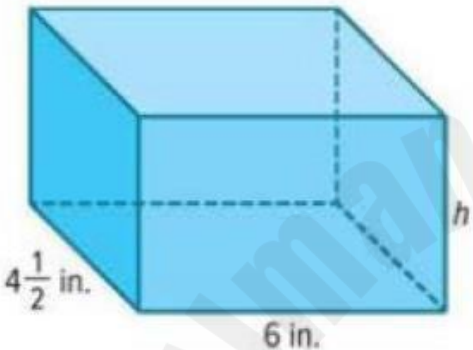
Example 2 Find Missing Dimensions

The rectangular prism shown has a volume of $94\frac{1}{2}$ cubic inches.

What is the height of the prism?

Step 1 Identify the known dimensions.

You know the length, width, and volume. You need to find the height.



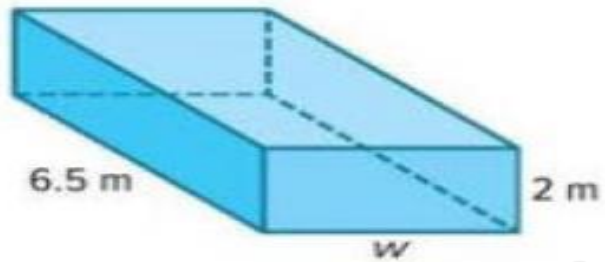
Check

Find the height of a rectangular prism with a volume of 126 cubic inches, a width of $7\frac{7}{8}$ inches, and a length of 2 inches. _____

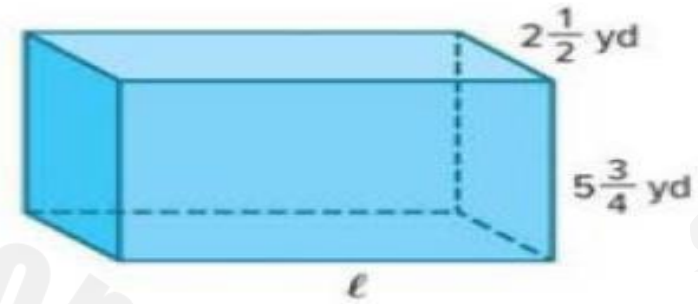
Show
your work
here



3. The rectangular prism shown has a volume of 52 cubic meters. What is the width of the prism? (Example 2)



4. The rectangular prism shown has a volume of 115 cubic yards. What is the length of the prism? (Example 2)



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?

Test Practice

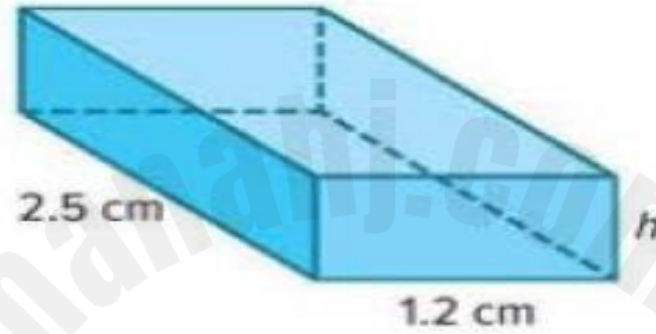
6. **Open Response** A rectangular prism has a length of 8 inches, a width of $7\frac{1}{2}$ inches, and a height of $6\frac{1}{4}$ inches. What is the volume of the prism?

2025

2024

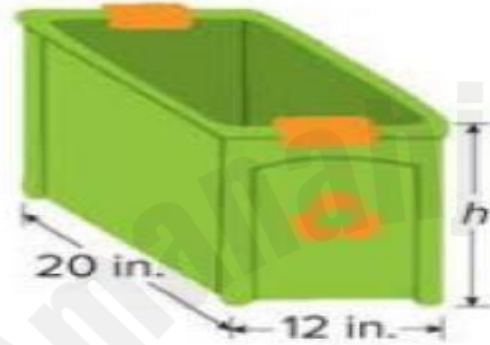
9. **MP Find the Error** A classmate found the height of the prism shown using the following method. Find the error and correct it.

$$\begin{aligned}h &= 1.5(1.2)(2.5) \\ &= 4.5 \text{ cm}\end{aligned}$$



$$V = 1.5 \text{ cm}^3$$

10. **MP Reason Abstractly** A town provides a rectangular recycling bin for each household. The volume of each bin is 3,840 cubic inches. Is the height of the recycling bin greater than one foot? Write an argument that can be used to defend your solution.



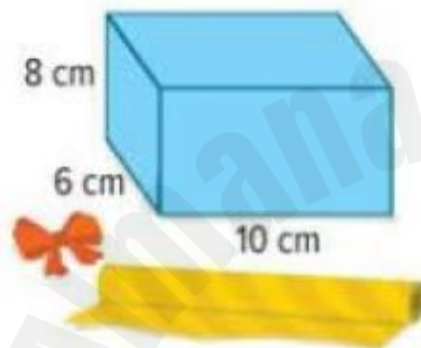
7	Surface Area of Rectangular Prisms	Example 2 + Check	499 & 500
		2, 3, 7	503 & 504

Example 2 Surface Area of a Rectangular Prism

Jon is covering the faces of the gift box shown with wrapping paper.

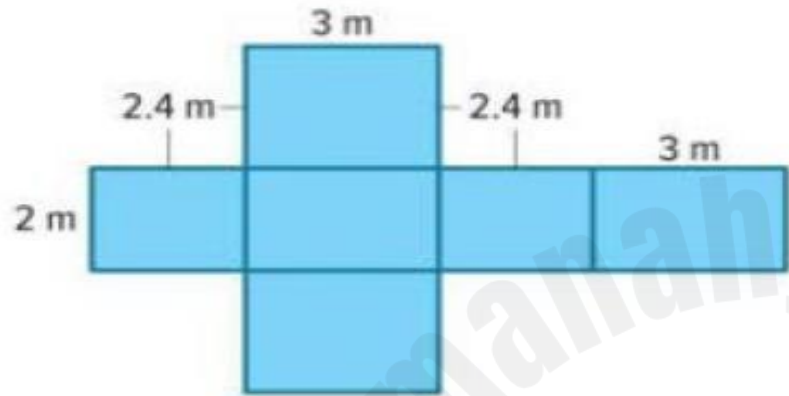
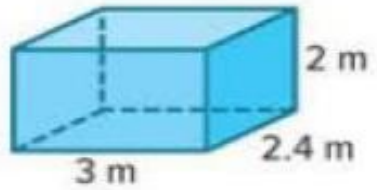
Use the net to determine the minimum amount of wrapping paper he will need to cover the box.

Step 1 Find the area of each face.



Check

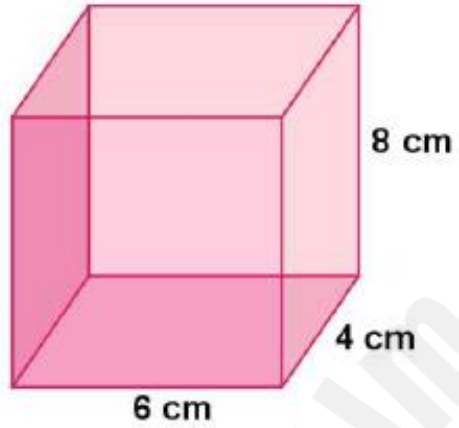
A moving crate that is shaped like a rectangular prism with the dimensions shown needs to be painted. Use the net to determine the area that is to be painted.



Show
your work
here

Find the surface area of the rectangular prism shown in the figure below.

أوجد مساحة سطح المنشور المستطيل القاعدة الموضح في الشكل أدناه.



a. 192 cm^2



b. 208 cm^2



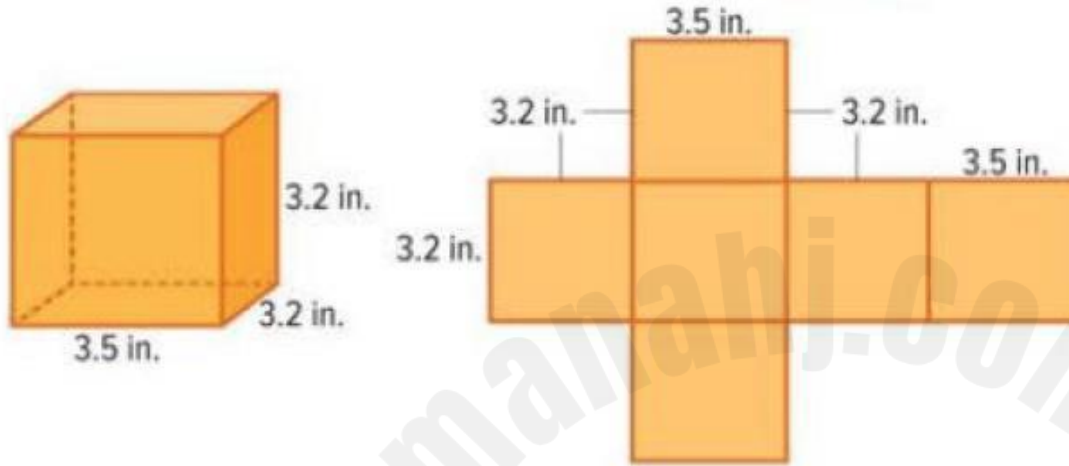
c. 188 cm^2



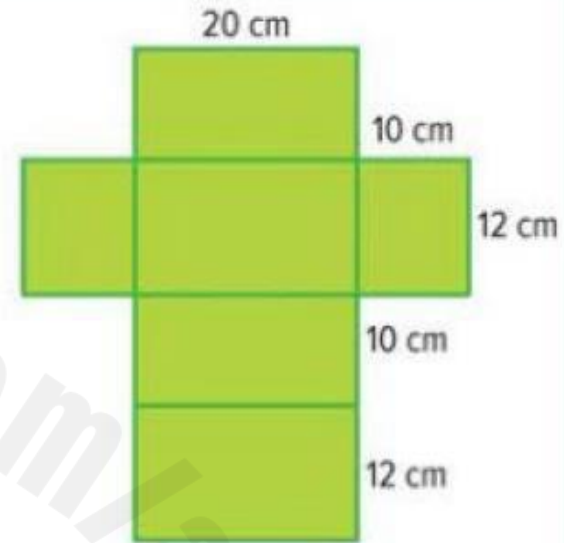
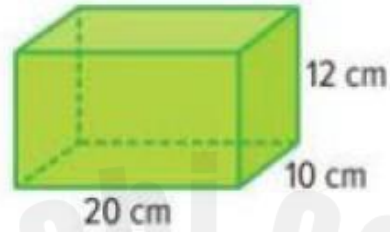
d. 168 cm^2



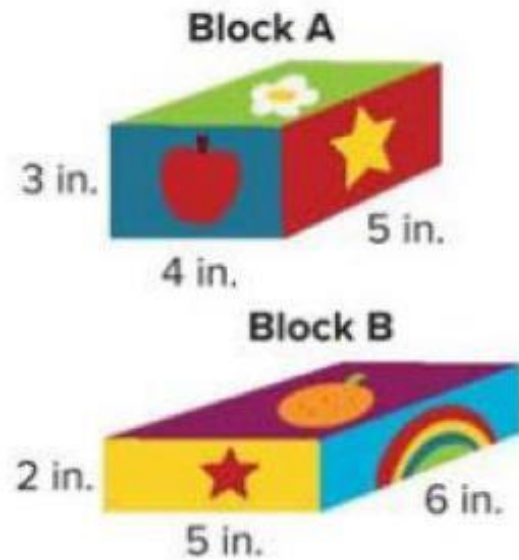
2. Trey is using cardboard to construct building blocks that are shaped like rectangular prisms. Use the net to determine the minimum amount of cardboard he will need to construct one block. (Example 2)



- 3. Open Response** 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.




7. **MP Reason Abstractly** Find the surface area and volume of each rectangular prism shaped block. Which block has the greater surface area? Does the same block have a greater volume? Write an argument that can be used to defend your solution.

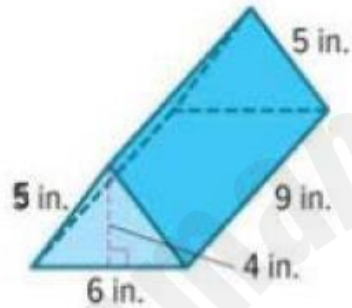


Learn Surface Area of a Triangular Prism

You can use the net of a prism to find the surface area of the prism.

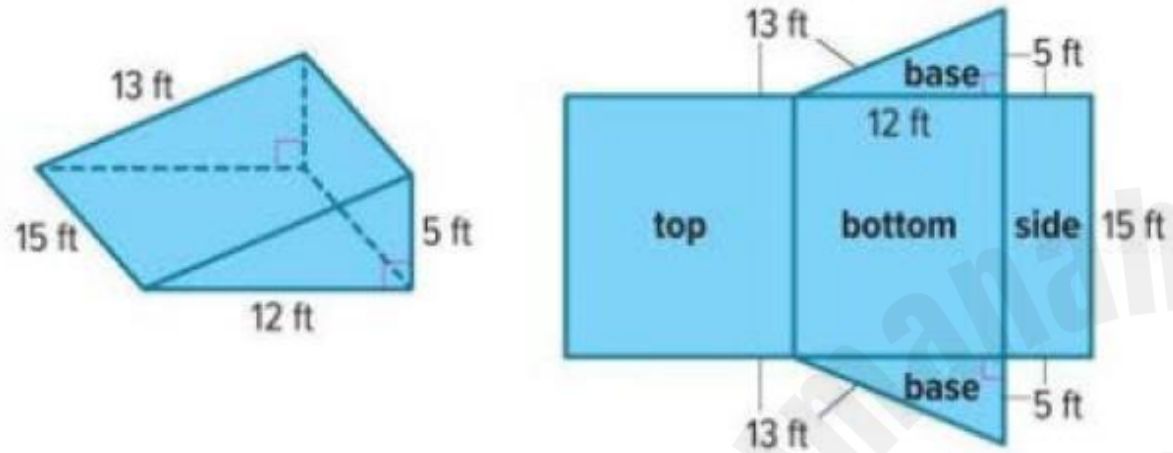
 **Go Online** Watch the animation to learn how to use a net to find the surface area of the prism shown.

The prism has two triangular bases and three rectangular faces.



Example 2 Surface Area of a T riangular Prism

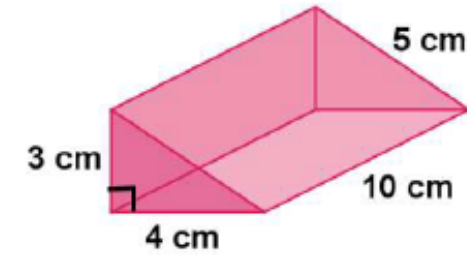
Use the net to find the surface area of the triangular prism.



Step 1 Find the area of the triangular bases.

Find the surface area of the triangular prism shown in the figure below.

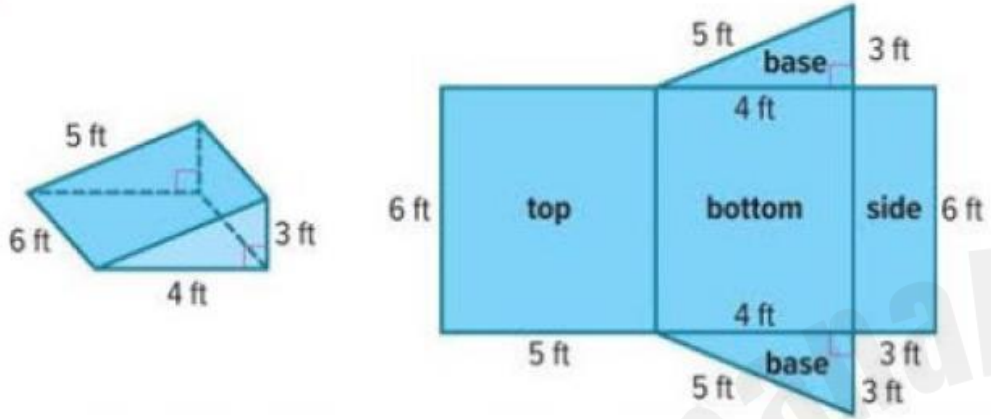
أوجد مساحة سطح المنشور الثلاثي الموضح في الشكل أدناه.



- | | | |
|----|--------------------|-----------------------|
| a. | 120 cm^2 | <input type="radio"/> |
| b. | 108 cm^2 | <input type="radio"/> |
| c. | 60 cm^2 | <input type="radio"/> |
| d. | 132 cm^2 | <input type="radio"/> |

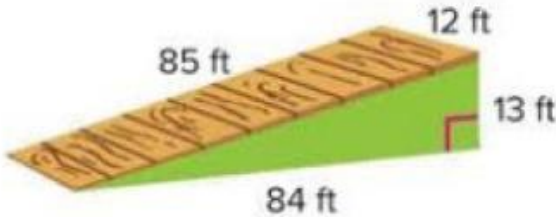
2. Use the net to find the surface area of the triangular prism.

(Example 2)

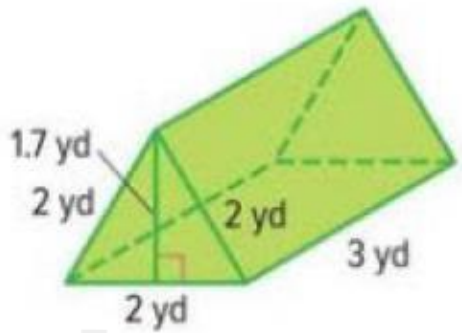


Apply

4. Mr. Saldivar is building a ramp in the shape of a triangular prism with the dimensions shown. Sheets of plywood are 8 feet long and 4 feet wide. What is the minimum number of sheets of plywood he needs to buy in order to have enough to build the ramp?



5. A tent is in the shape of the triangular prism with the dimensions shown. If the canvas to make the tent costs \$4.99 per square yard, how much will it cost for the fabric to make the tent?

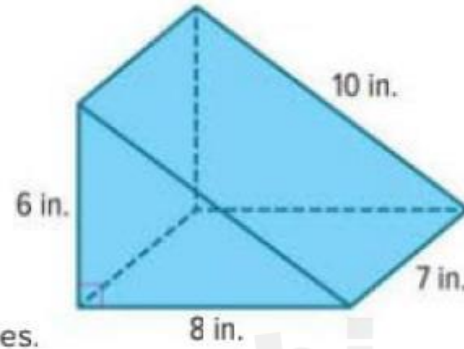


8. **MP Find the Error** A classmate found the surface area of the triangular prism shown. Find the error and correct it.

Area of Bases
 $A = 2\left(\frac{1}{2}\right)(6)(8)$
 $A = 48$

Area of Faces
 $A = 3(7)(10)$
 $A = 210$

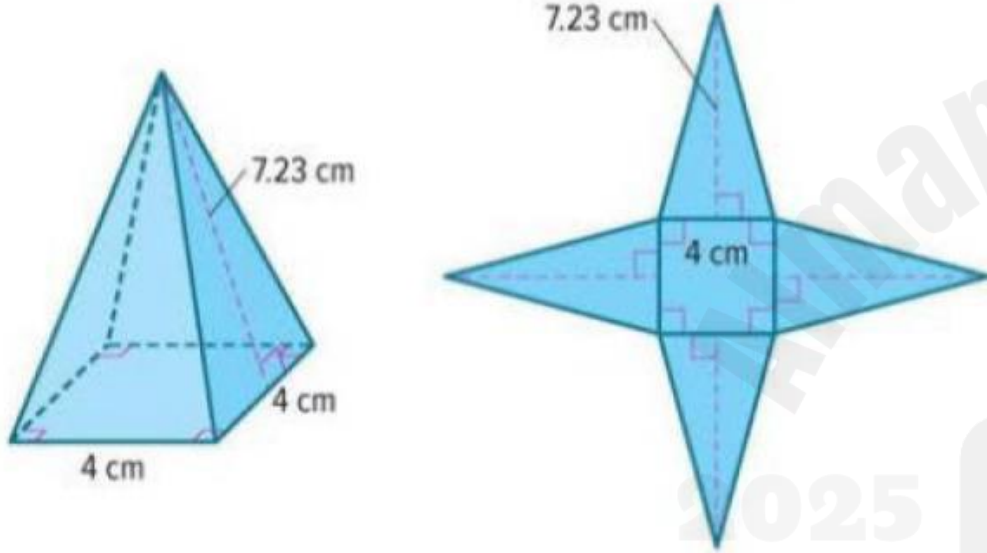
The surface area of the prism is $48 + 210$ or 258 square inches.



9	Surface Area of Pyramids	Example 3 + Example 4	523 & 525
		(1-5)	529 & 530

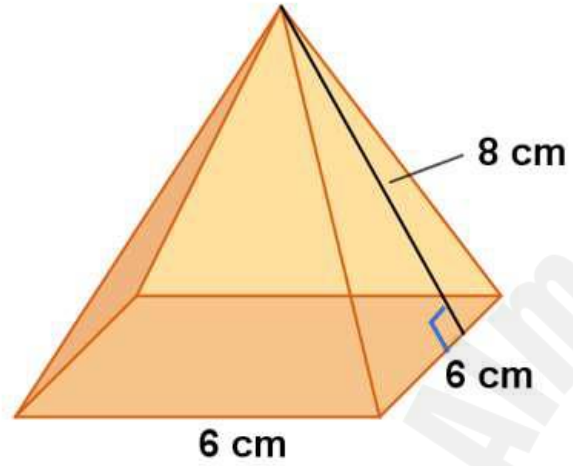
Example 3 Find Surface Area of a Square Pyramid

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



Find the total surface area of the square pyramid shown in the figure below.

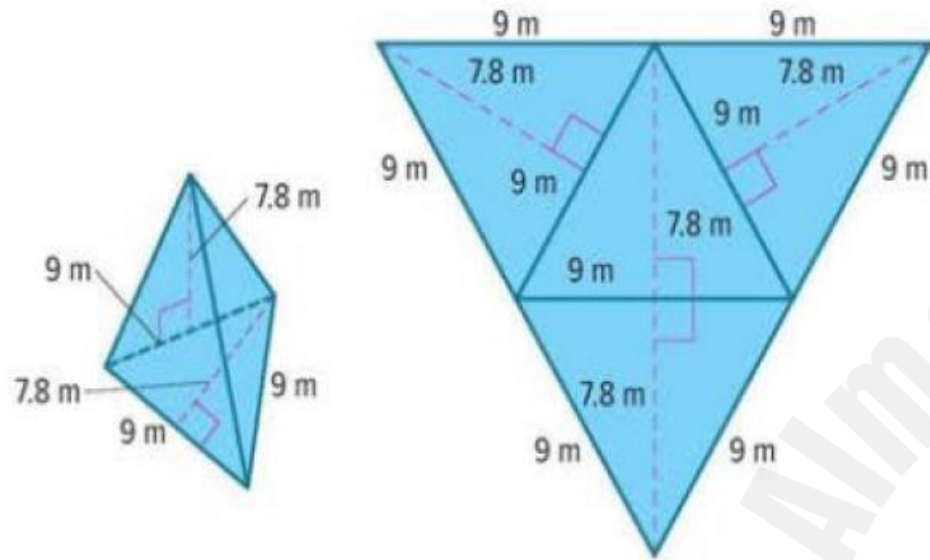
أوجد المساحة الكلية لسطح الهرم المربع القاعدة الموضح في الشكل أدناه.



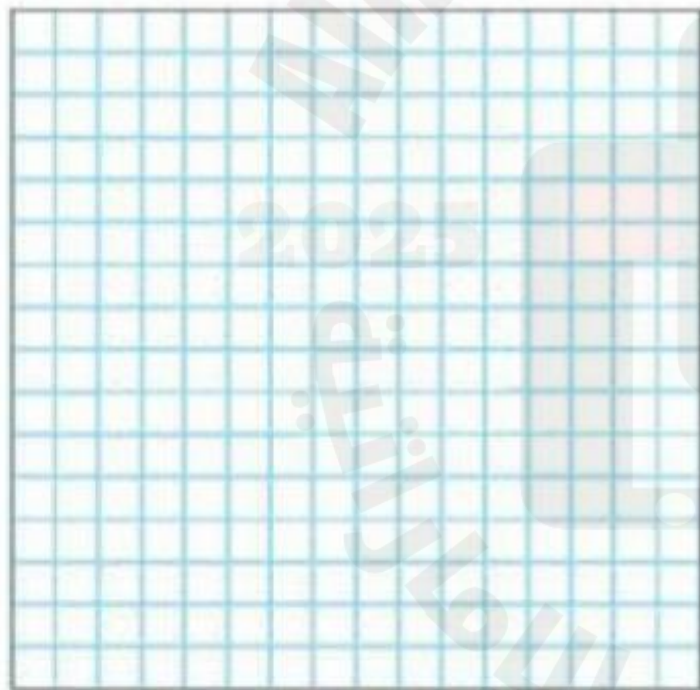
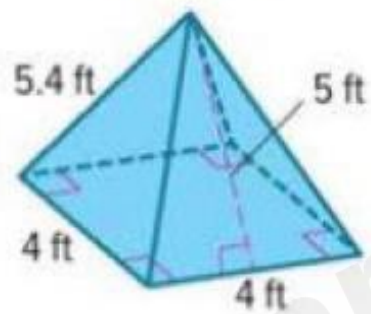
- a. 120 cm^2 ☐
- b. 96 cm^2 ☐
- c. 144 cm^2 ☐
- d. 132 cm^2 ☐

Example 4 Find Surface Area of a Triangular Pyramid

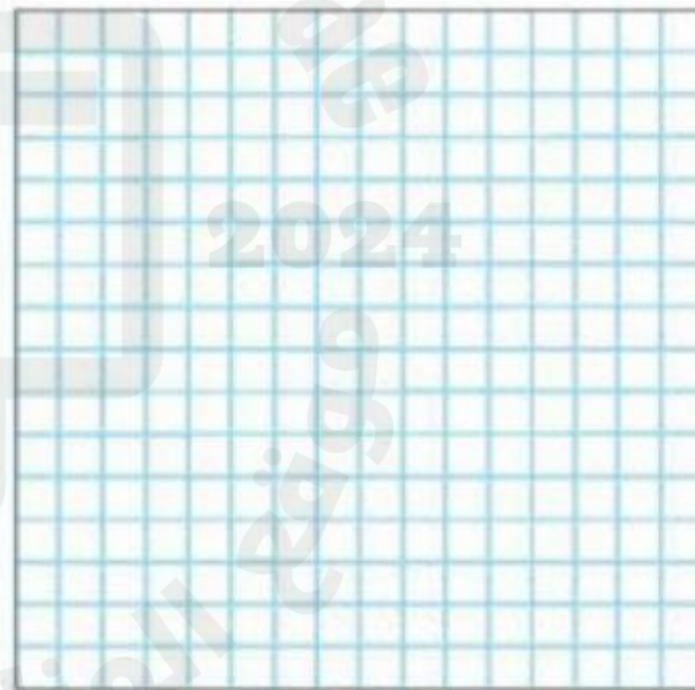
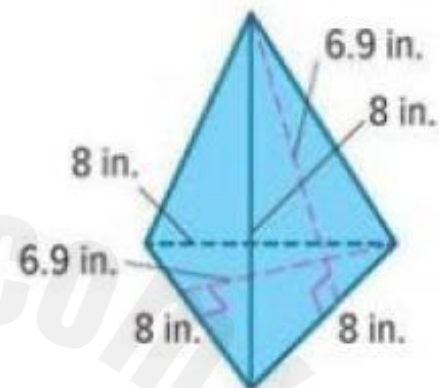
Use the net to find the surface area of the triangular pyramid.



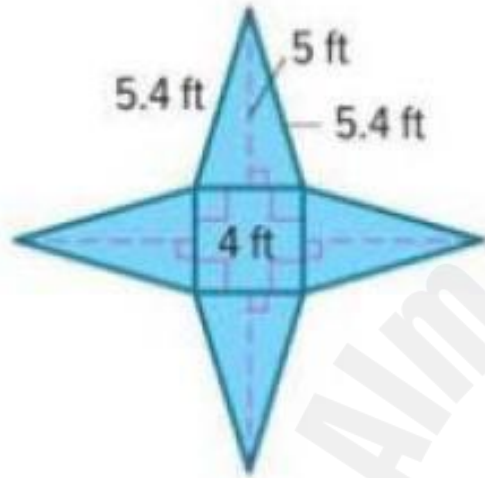
1. Draw and label a net to represent the square pyramid. (Example 1)



2. Draw and label a net to represent the triangular pyramid. (Example 2)

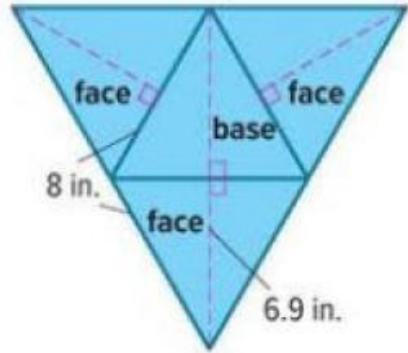


3. Use the net to find the surface area of the pyramid. (Example 3)



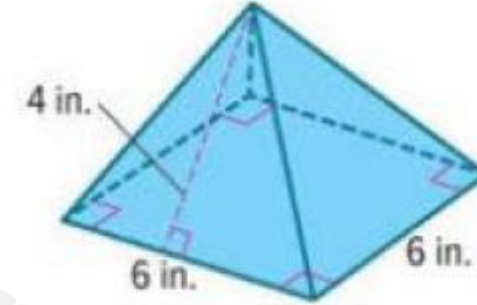
Test Practice

- 4. Open Response** Use the net to find the surface area of the pyramid in square inches. (Example 4)



Apply

5. Mr. Potter makes two types of wooden pyramid puzzles. The base of Puzzle 1 is a square with side lengths of 5 inches and a slant height of 7 inches. Puzzle 2 is shown. If the cost of materials to build the puzzles is \$0.16 per square inch, what is the difference in cost to make the puzzles?



10	Statistical Questions	(1-8)	541 & 542
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Determine whether or not each question is a statistical question.

(Example 1)

1. *How many continents are there?*
2. *How many continents has the average student visited?*
3. *How many sporting events did the average student attend last year?*
4. *In what year was the first World Series?*

5. Suppose you want to determine the number of siblings each of your classmates have. You survey them using the question *How many siblings do you have?* The responses were 1, 4, 2, 3, 0, 1, 0, 5, 1, 2, 2, 3, 0, 1, 2, 0, 1, 1, 6, and 2 siblings. Organize the data by completing the table and analyze the results. (Example 2)

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

6. You survey your classmates using the question *How many toppings do you like on an ice cream sundae?* The responses were 2, 3, 7, 4, 5, 5, 4, 4, 1, 2, 4, 3, 4, 3, 6, 0, 4, 5, 6, and 5 toppings. Organize the data by completing the table and analyze the results. (Example 2)

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

7. You survey your classmates using the question *How many sports do you play?* The responses were 2, 2, 1, 3, 1, 2, 4, 1, 2, 1, 3, 2, 2, and 2 sports. Organize the data by completing the table and analyze the results. (Example 2)

Number of Sports	Number of Responses
1	
2	
3	
4	

Test Practice

8. Multiselect Which of the following are statistical questions? Select all that apply.

- ☐ How many DVDs does a typical student own?
- ☐ How many classes does each student take?
- ☐ How many oceans are there in the world?
- ☐ How many pets does a typical student own?
- ☐ How many times did a typical student go to the zoo last year?
- ☐ How many continents are there?

11	Measures of Center	(1-10)	559 & 560
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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. (Example 1)

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. (Example 1)

2025

2024

The following table shows the number of CDs a group of friends bought. Find the mean number of CDs the group bought.

يوضح الجدول التالي عدد الأقراص المدمجة التي اشترتها مجموعة من الأصدقاء . احسب المتوسط الحسابي للأقراص المدمجة التي اشترتها المجموعة.

Number of CDs Purchased				
4	6	5	2	3

عدد الأقراص المدمجة التي تم شراؤها				
4	6	5	2	3

a. 7



b. 6



c. 20



d. 4



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? (Example 2)

4. The average high temperature last week was 65 degrees Fahrenheit. The high temperatures for Sunday through Friday were 68, 70, 73, 45, 68, and 71 degrees Fahrenheit. What was the high temperature on Saturday? (Example 2)



5. The table shows the results of a survey about the number of E-mails sent in one day. Find the median number of E-mails sent per day. (Example 3)

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

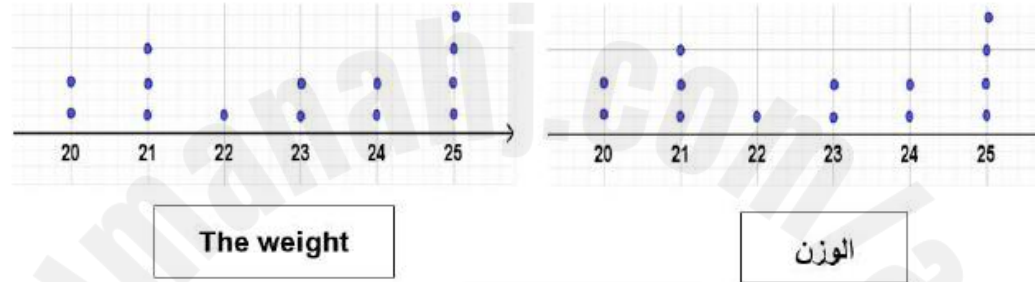
6. The table shows the number of students in each group on a school field trip. Find the median size of a group. (Example 3)

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

The following line plot of data shows the weights of a group of students.

Find the median of the data.

يوضح مخطط النقاط المجمعة التالي أوزان مجموعة من الطلاب. أوجد الوسيط للبيانات.



- a. 23.5 ☐
- b. 22 ☐
- c. 23 ☐
- d. 22.5 ☐

Test Practice

7. The table shows the number of points scored by a basketball team in each game last season. Find the median number of points scored. (Example 4)

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

8. **Open Response** The number of points Seth has earned playing his favorite game is shown. Find the median of the data.

40, 28, 24, 37, 43, 26, 30, 36

The scores of 5 students in the final exam are: 85, 70, 80, 50, 90, find the median of the data.

درجات 5 طلاب في الاختبار النهائي هي: 85, 70, 80, 50, 90، أوجد الوسيط للقيم.

- | | | |
|----|------|-----------------------|
| a. | 85 | <input type="radio"/> |
| b. | 70 | <input type="radio"/> |
| c. | 80 | <input type="radio"/> |
| d. | 82.5 | <input type="radio"/> |

Apply

9. The table shows the number of minutes Kenny spent practicing the piano. Kenny wants to record the greater measure of center that describes his time spent practicing. Which measure should he use, the mean or median? Why?

Number of Minutes			
38	30	26	25
20	24	25	60

10. The table shows the number of push-ups Jade completed each day this week. Jade wants to record the greater measure of center that describes her ability to do push-ups. Which measure should she use, the mean or median? Why?

Number of Push-ups			
65	70	67	38
55	68	64	

12	Interquartile Range and Box Plots	Example 1	562
		6	568

Example 1 Find the Range and Interquartile Range

The table shows the approximate maximum speeds, in miles per hour, of different animals.

Use the range and interquartile range to describe how the data vary.

Part A Describe the variation of the data using the range.

The greatest speed in the data set is 70 miles per hour. The least speed in the data set is 1 mile per hour.

The range is $70 - 1$, or 69 miles per hour.

The speeds of animals vary by 69 miles per hour.

Animal	Speed (mph)
Housecat	30
Cheetah	70
Elephant	25
Lion	50
Mouse	8
Spider	1

Apply

6. The table shows the number of points scored by the seventh and eighth grade girls basketball teams in each of their games this season. Construct a box plot to represent the data for each team. Then use the box plots to compare the data.

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

13	Outliers	Example 1 + Learn	575 & 576
		(1-7)	581

Example 1 Identify Outliers

The ages, in years, of the candidates in an election are 55, 49, 48, 57, 23, 63, and 72.

Identify any outliers in the data set.

Step 1 Find the quartiles and interquartile range.

List the data values from least to greatest.

--	--	--	--	--	--	--

least

greatest

1. Last week, Joakim spent 40, 25, 60, 30, 35, and 40 minutes practicing the piano. Identify any outliers in the data. (Example 1)

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. (Example 1)



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.

(Example 1)

4. Last week a certain pet store had 52, 72, 96, 21, 58, 40, and 75 paying customers. Identify any outliers in the data. (Example 1)



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. (Example 2)

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. (Example 2)

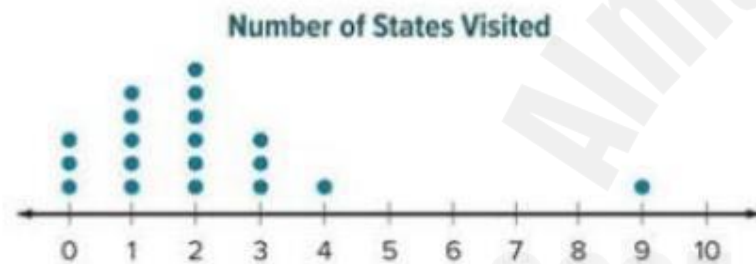
7. The table shows the number of points scored by a football team. Calculate the mean and median with and without the outlier. Round to the nearest tenth, if necessary. Choose the measure that best describes the center. Explain. (Example 2)

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

14	Interpret Graphical Displays	Example 1 + Example 3	584 & 586 & 588
		1,3,4,5	591
15	Interpret Graphical Displays	Example 2 + Learn	586 & 587
		6,7,8	592

Example 1 Interpret Dot Plots

The results of a class survey about the number of states visited by students are shown in the dot plot.



Choose the appropriate measure of center and variation. Then use the measures to describe the distribution.

Part A Choose the appropriate measures.

The data are not evenly distributed between the left side and the right side.

There appears to be an outlier.

So, the distribution is not symmetric.

Which measure of center should you use? _____

Which measure of variation should you use? _____

Part B Describe the distribution.

A total of _____ students responded to the survey.

Find the measure of center you chose in Part A.

Show your work here

The measure of center indicates that the number of states visited by the students can be summarized by the single value of _____ states.

Find the measure of variation you chose in Part A.

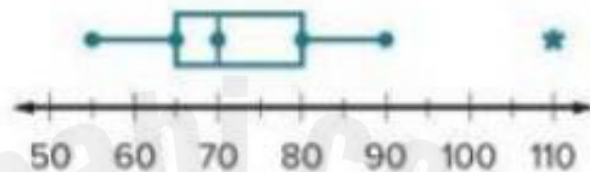
Show your work here

The measure of variation indicates that the spread of the data around the center is _____ states. Other than the outlier, there is not a lot of variation among the data.

Example 3 Interpret Box Plots

The box plot shows the daily attendance at a fitness club.

Fitness Club Attendance



Describe the distribution of the data, including any symmetry, outliers, measures of center, and measures of variation.

The distribution is not symmetric.

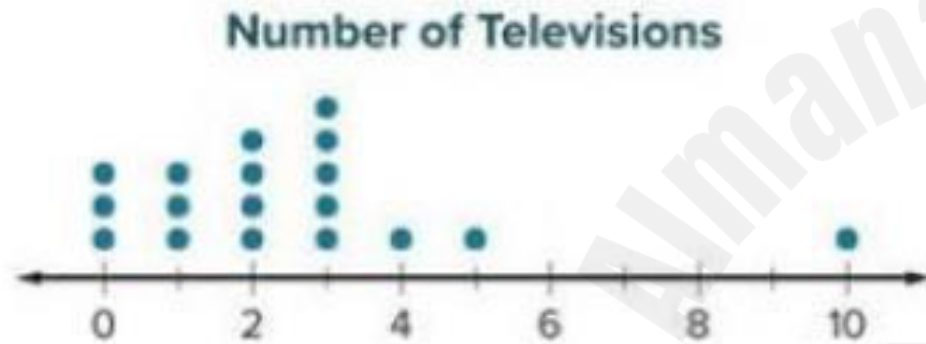
The data contain an outlier, 110 people, indicated by the asterisk.

The median is 70 people. This means that for half of the days, the daily attendance at the fitness club was below 70, and for half of the days, the daily attendance was above 70.

The interquartile range is 80–65, or 15. This means that the middle 50% of the data vary by 15.

The left box is the shortest. This means that 25% of the data is between 65 and 70 people, and these data values are closer together than the data values in the other box or whiskers.

1. The dot plot shows the number of televisions owned by the families in a neighborhood. Choose the appropriate measure of center and variation. Then use the measures to describe the data set. (Example 1)



3. The histogram shows the dollars pledged by supporters of an animal shelter. Use clusters, gaps, peaks, outliers, and symmetry to describe the shape of the distribution. (Example 2)

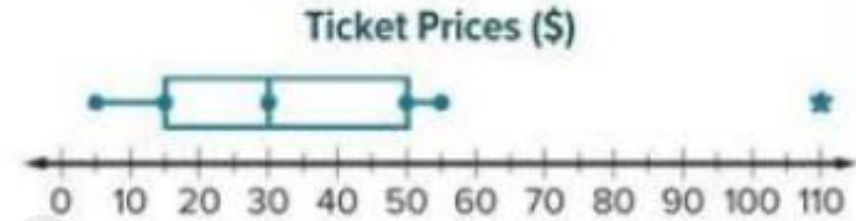


4. The box plot shows the amount of money, in dollars, Olivia saved during various months. Find the median and the measures of variation. Then describe the data. (Example 3)



Test Practice

5. Multiple Choice The box plot shows the ticket prices, in dollars, of various concerts. What is the median, interquartile range, and range of the data, in that order?



(A) 30; 35; 50

(B) 30; 40; 105

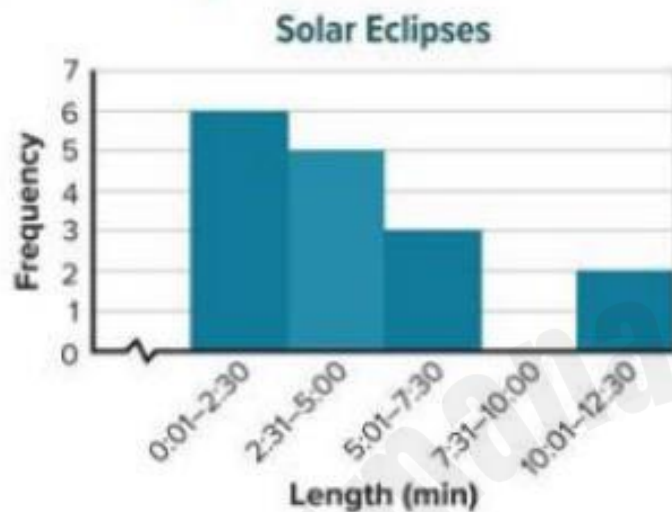
(C) 30; 15; 50

(D) 30; 35; 105

Example 2 Interpret Histograms

The histogram shows the duration, in minutes and seconds, of solar eclipses over a 10-year period.

Use clusters, gaps, peaks, outliers, and symmetry to describe the shape of the distribution.



Step 1 Identify any symmetry, clusters, and outliers. The distribution is not symmetric. There is a cluster from 0:01–7:30. There are no outliers.

Step 2 Identify any peaks.

There is a peak from 0:01–2:30.

Step 3 Identify any gaps.

There is a gap from 7:31–10:00.

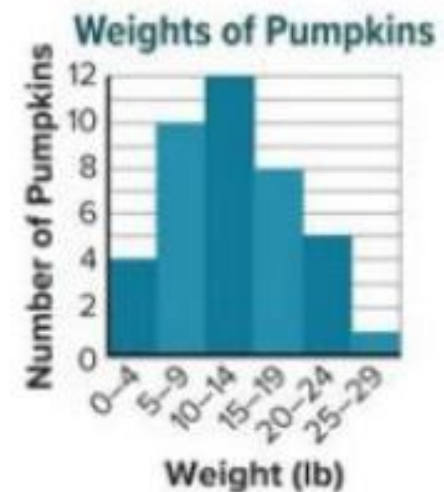
Step 4 Describe the distribution.

Summarize the information you found.

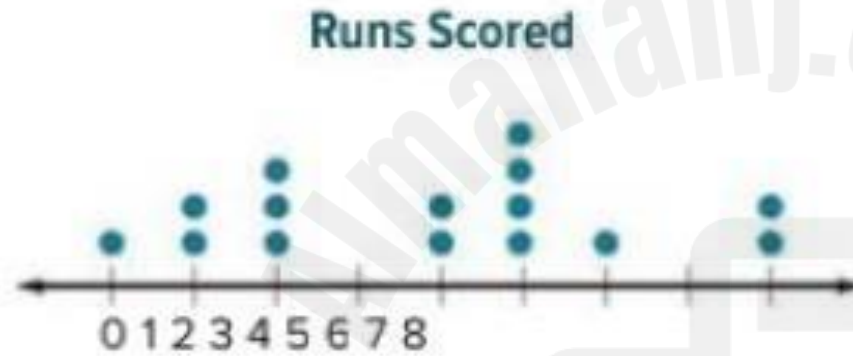
The distribution is not symmetric and does not contain any outliers.

The data cluster around 1 second to 7 minutes and 30 seconds and have a peak at 1 second to 2 minutes and 30 seconds. There is a gap at 7 minutes and 31 seconds to 10 minutes.

7. The histogram shows the weights of pumpkins picked by students on a pumpkin farm. One student claimed that more than 25% of the pumpkins picked weighed 20 pounds or more. Is the student correct? Write an argument that can be used to defend your solution.



8. **MP Be Precise** The dot plot shows the number of runs scored by a baseball team for last season. Use clusters, gaps, peaks, outliers, and symmetry to describe the shape of the distribution.



Part 2

FRQ QUESTIONS

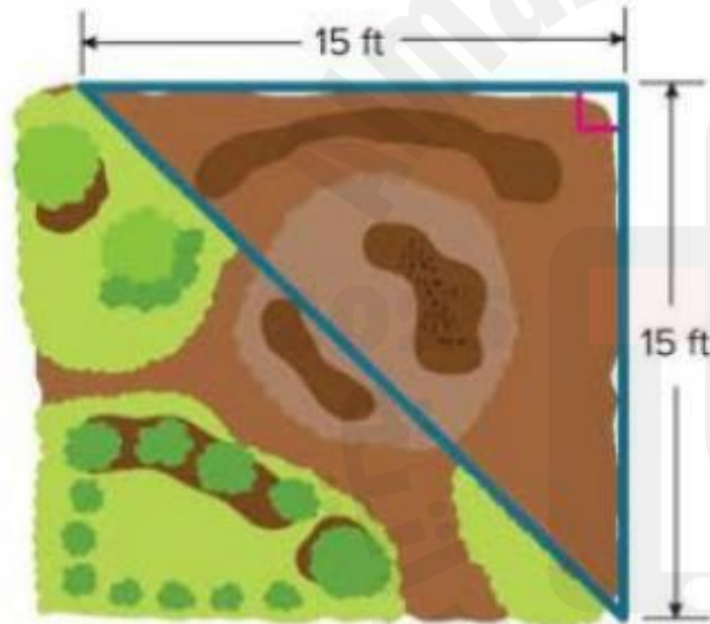
الأسئلة المقالية

الكتابية

16	Area of Triangles	Check	448
		(1-11)	449 & 450

Check

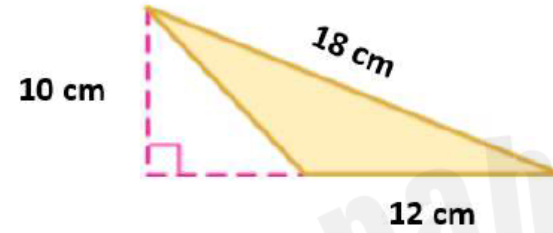
Vladimir is planting wildflowers in the corner of his yard as shown. A packet of wildflower seeds costs \$4.95 and covers 50 square feet. How much will Vladimir spend on wildflower seeds?



Show
your work
here

Use the graph below to find the area
of the shaded triangle.

استخدم الشكل أدناه لإيجاد مساحة المثلث
المظلل.



a. 120 cm^2

☐

b. 70 cm^2

☐

c. 54 cm^2

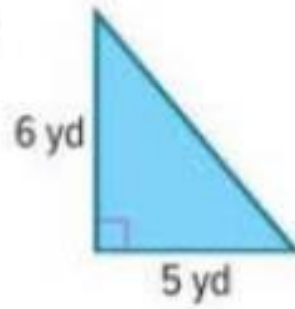
☐

d. 60 cm^2

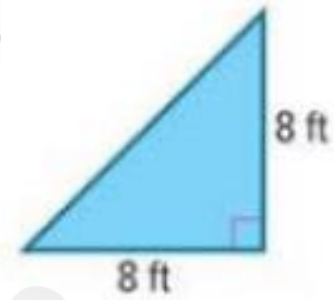
☐

Find the area of each triangle. (Example 1)

1.



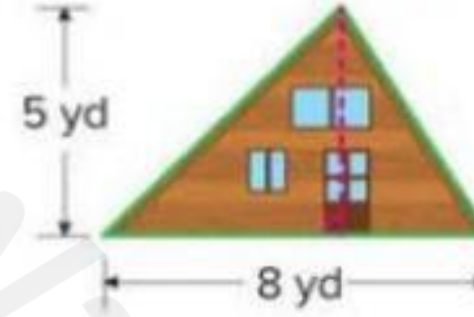
2.



3. Tameeka is in charge of designing a school pennant for spirit week. What is the area of the pennant? (Example 2)

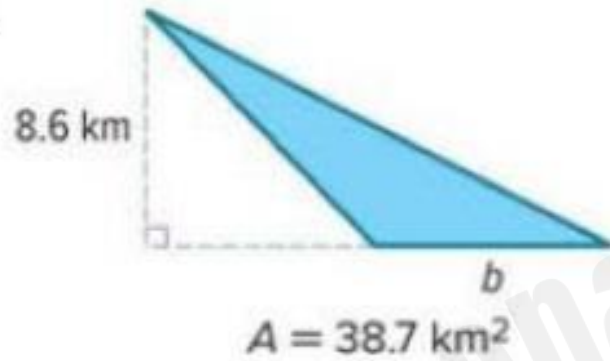


4. Norma has an A-frame cabin. The back is shown below. If the total area of the windows and doors is 3.5 square yards, how many square yards of paint will she need to cover the back of the cabin? (Example 2)

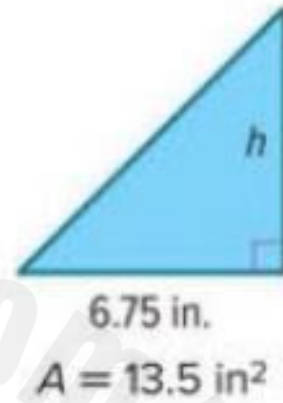


Find the missing dimension in each triangle. (Example 3)

5.



6.

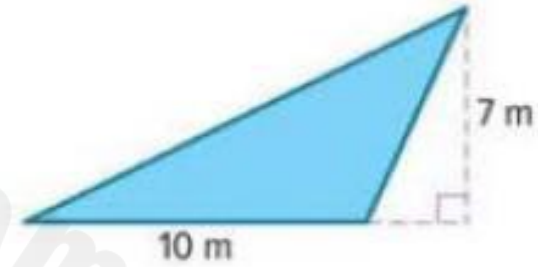


Test Practice

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

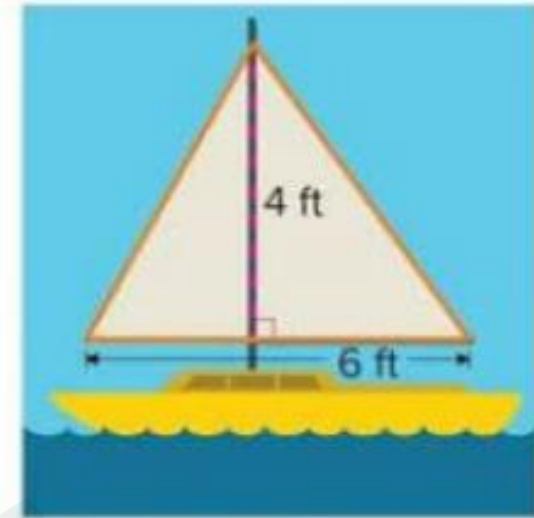


8. **Open Response** What is the area of the triangle?

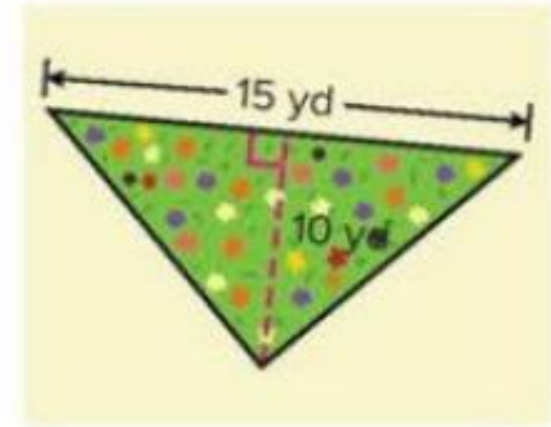


Apply

9. Aubrey is painting a mural of an ocean scene. The triangular sail on a sailboat has a base of 6 feet and a height of 4 feet. Aubrey will paint the sail using a special white paint. A container of this paint covers 10 square feet and costs \$6.79 per container. How much will Aubrey spend on the white paint?



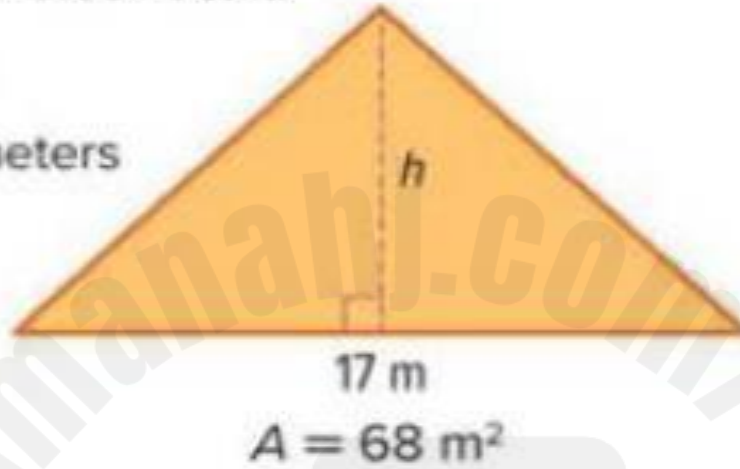
10. Silas is making a wildflower meadow with the dimensions shown. He plans to cover the entire meadow with a wildflower seed mix. One bag of wildflower seed mix covers 22 square yards and costs \$12.79. How much will Silas spend on the wildflower seed mix?



11. **MP Find the Error** A student is finding the height of the triangle. Find the student's mistake and correct it.

$$17h = 68$$

$$h = 4 \text{ meters}$$



Example 1 Find Perimeter of an Irregular Figure

Find the perimeter of the exhibit shown on the coordinate plane.

Method 1 Count the units.

Count the units as you move along the perimeter of the exhibit.

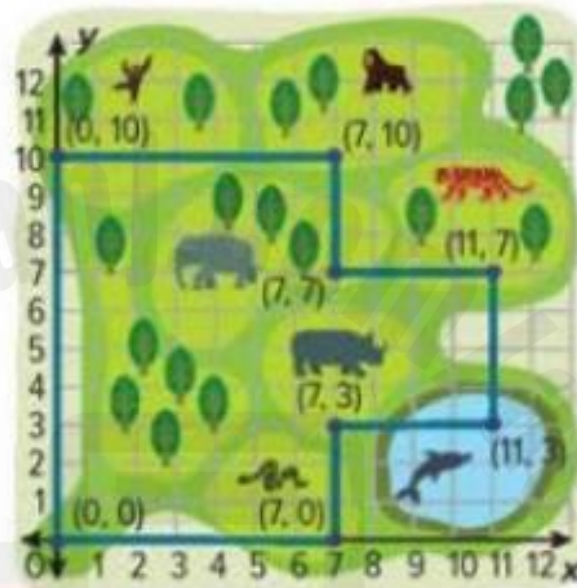
Start at the entrance, or $(0, 0)$.
How many units do you need to travel along the y -axis to reach the monkeys? _____ units

How many units do you need to travel along the x -axis from the monkeys to reach the gorillas?
_____ units

Continue counting along the perimeter until you return to the entrance.

Add to find the perimeter.

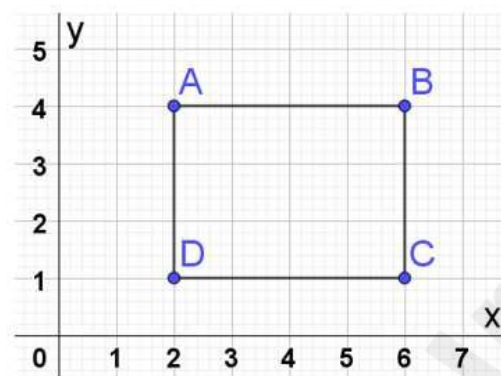
$$10 + 7 + 3 + 4 + 4 + 4 + 3 + 7 = \boxed{} \text{ units}$$



A rectangle vertices are:

$A(2, 4)$, $B(6, 4)$, $C(6, 1)$, $D(2, 1)$.

Use the coordinates of the rectangle
in the figure below to find the sum of
the rectangle sides.



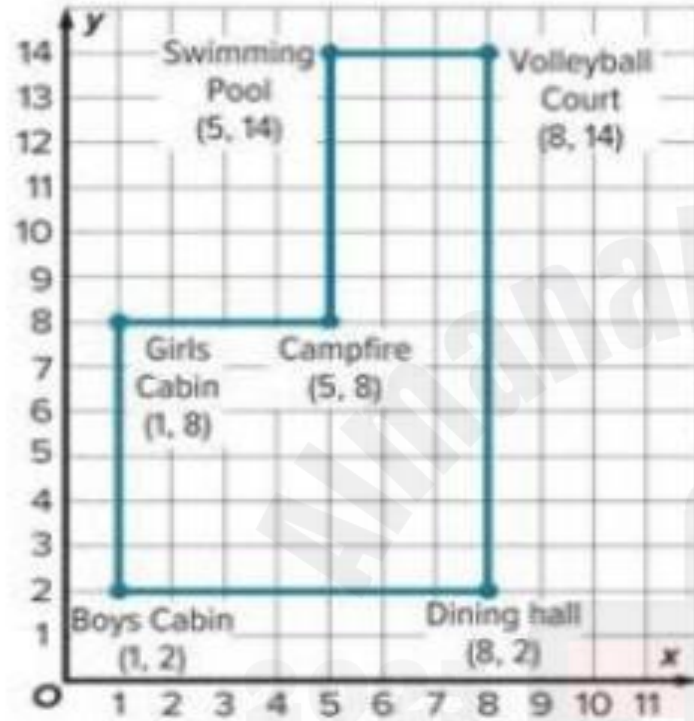
رؤوس مستطيل هي:

$A(2, 4)$, $B(6, 4)$, $C(6, 1)$, $D(2, 1)$

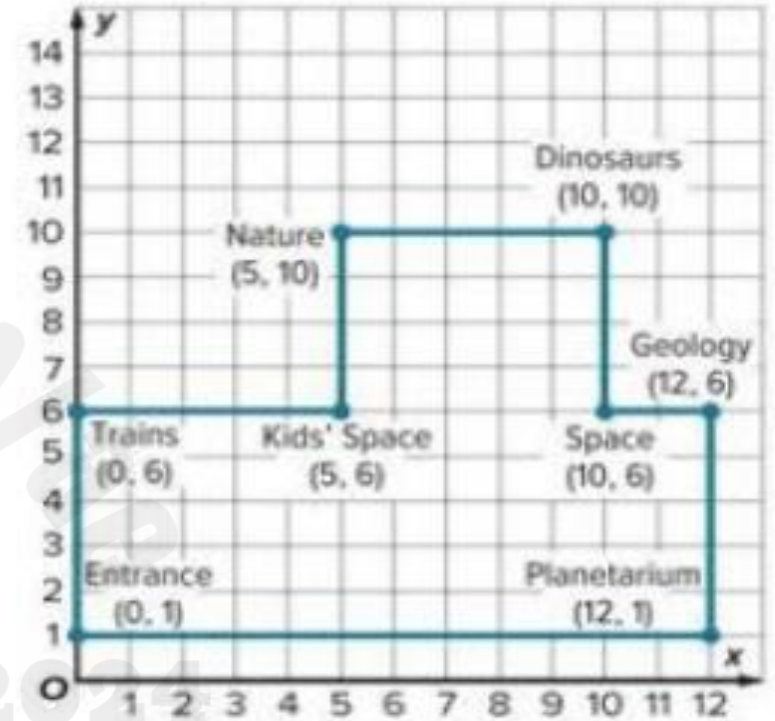
استخدم إحداثيات المستطيل في الشكل أدناه
لإيجاد مجموع أطوال أضلاع المستطيل.

- a. 14 وحدة
14 units ☐
- b. 7 وحدات
7 units ☐
- c. 18 وحدة
18 units ☐
- d. 12 وحدة
12 units ☐

1. Find the perimeter of the summer camp shown on the coordinate plane. (Example 1)



2. Find the perimeter of the science center shown on the coordinate plane. (Example 1)



3. 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. (Example 2)

4. 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. (Example 2)



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



18	Volume of Rectangular Prisms	Example 1 + Learn	487 & 488
		1,2,5	493 & 494

Example 1 Find the Volume of a Rectangular Prism

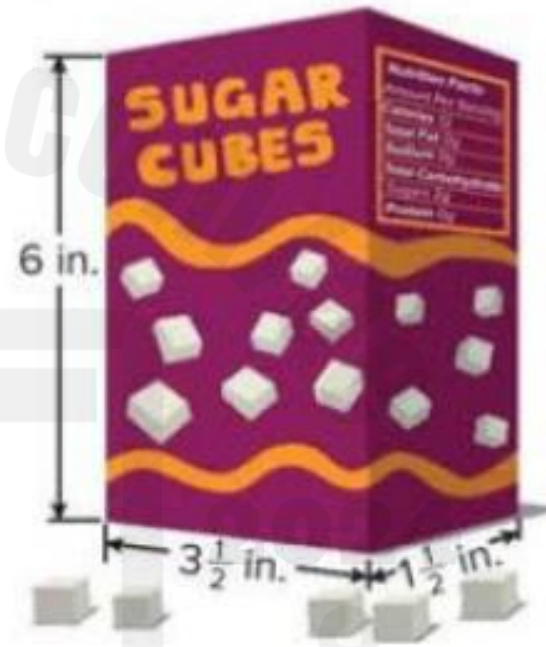
Mini sugar cubes measure $\frac{1}{4}$ inch on each side. The box shown is packed full of sugar cubes.

What is the volume of the box?

Method 1 Use unit cubes.

Step 1 Find the number of mini sugar cubes.

Each sugar cube has a side length of $\frac{1}{4}$ inch.



A rectangular prism sink is
10 cm long, 5 cm wide, and 3 cm
deep.


Find the amount of water that can be
contained in the sink.

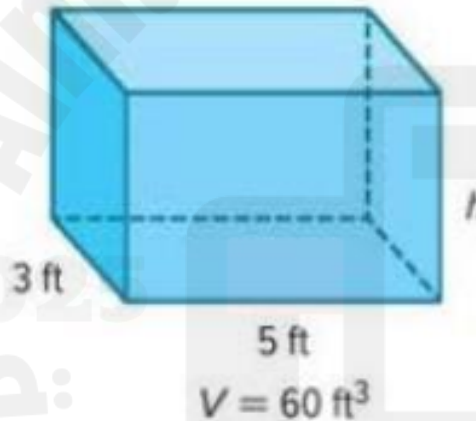
حوض على شكل منشور مستطيل القاعدة يبلغ
طوله 10 cm وعرضه 5 cm وعمقه 3 cm.
احسب مقدار المياه التي يمكن أن يحتويه.

- | | | |
|----|---------------------|-----------------------|
| a. | 180 cm ³ | <input type="radio"/> |
| b. | 150 cm ³ | <input type="radio"/> |
| c. | 120 cm ³ | <input type="radio"/> |
| d. | 190 cm ³ | <input type="radio"/> |

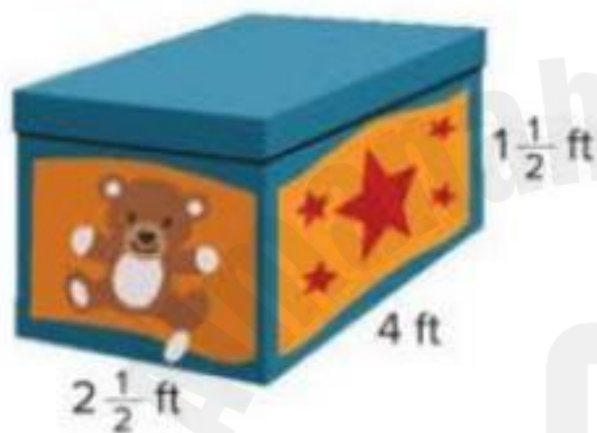
Learn Find Missing Dimensions

When you know the volume of a rectangular prism and 2 out of 3 dimensions, you can write and solve an equation to find the missing dimension. Using the volume formula, replace the variables with the known values. Then solve the equation to find the unknown value.

 **Go Online** Watch the animation to learn how to find the missing dimension for the rectangular prism shown.



1. Geneva's younger brother has a toy box that is shaped like a rectangular prism with the dimensions shown. What is the volume of the toy box? (Example 1)



2. Roy made a jewelry box in the shape of a rectangular prism with the dimensions shown. What is the volume of the jewelry box? (Example 1)



- 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?

19	Dot Plots and Histograms	Example 1 + Example 2	543 & 545
		1,2,3,5,6,7	547 & 548

Example 1 Construct Dot Plots

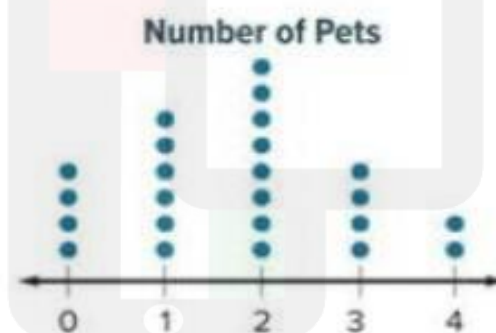
Jasmine surveyed the students in her class using the question *How many pets do you own?*. The results are shown in the table.

Number of Pets											
3	0	0	1	2	1	1	2	2	0	1	2
1	2	3	4	3	3	2	0	1	4	2	2

Construct a dot plot of the data. Then summarize the results.

Part A Construct a dot plot.

Draw and label a number line from 0 to 4, because the least data value is 0 and the greatest data value is 4. For each data value, place a dot above the corresponding number on the number line.



Part B Summarize the results.

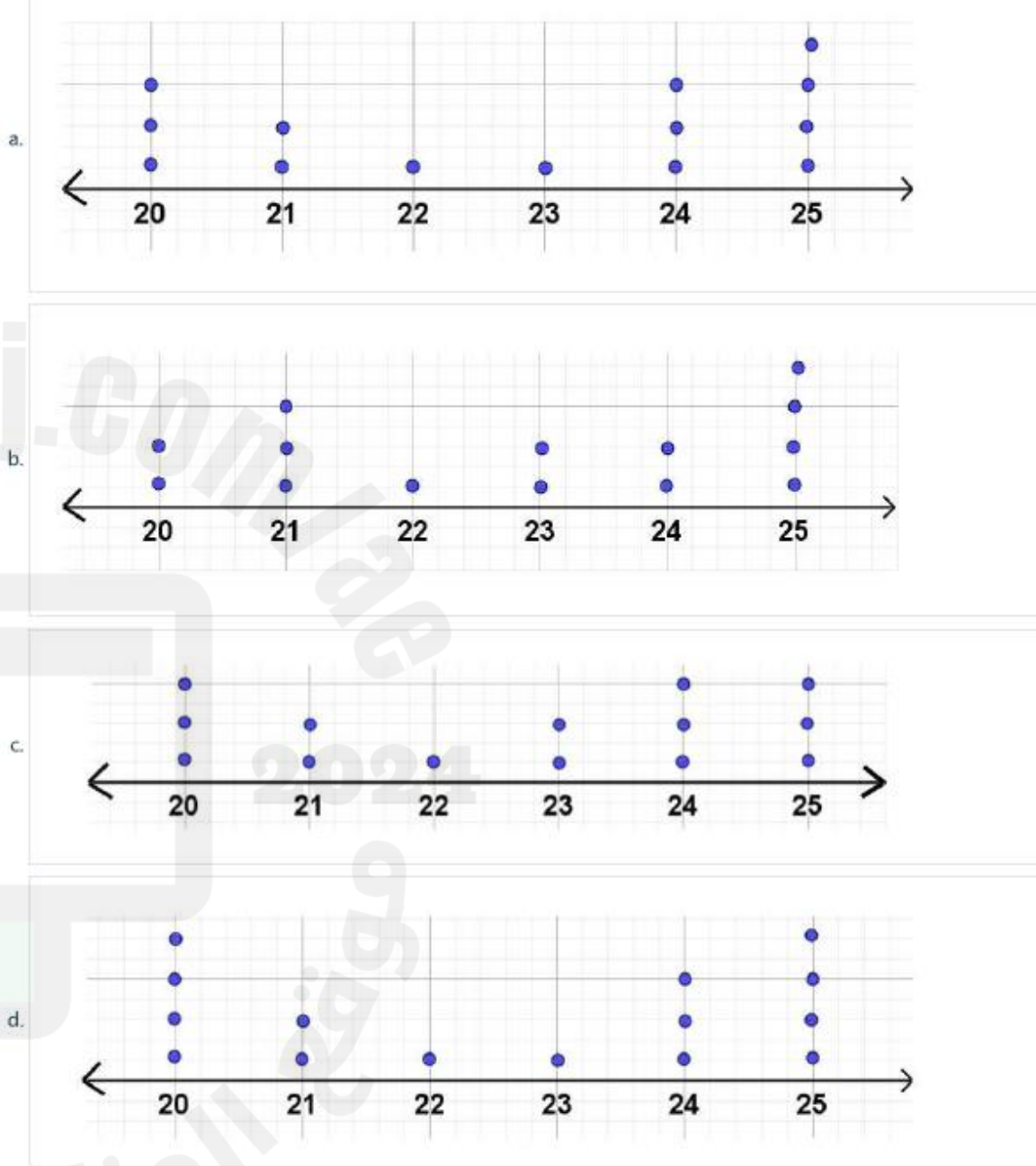
A total of 24 students responded to the survey. Students are more likely to own 1 or 2 pets than 3 or 4 pets. No student in the survey owned more than 4 pets.

The following table represents the weights of 14 kids.
Draw a line plot of the data.

The weight						
25	24	25	21	20	22	20
24	24	25	25	20	23	21

لجدول التالي يمثل أوزان 14 طفل.
رسم مخططاً للنقاط المجمعة للبيانات.

الوزن						
25	24	25	21	20	22	20
24	24	25	25	20	23	21



Example 2 Construct Histograms

A park ranger at a state park was asked the question *How many daily visitors attended the park each day for 20 days?* The table shows the results.

Construct a histogram to represent the data.

Daily Visitors					
108	209	171	152	236	
165	244	263	212	161	
327	185	192	226	137	
193	235	207	382	241	

Step 1 Make a frequency table.

Use a scale to include all of the values, 100 through 399, with equally-spaced intervals.

Complete the frequency table to organize the data.

Daily Visitors	
Visitors	Frequency
100–149	
150–199	
200–249	
250–299	
300–349	
350–399	

Step 2 Draw and label the axes.

When you construct the histogram, first draw the axes. Label the horizontal axis using the intervals from the frequency table, 100–149 through 350–399. Label the vertical axis with the frequencies, 1–10.



Step 3 Graph the intervals.

For each interval, draw a bar with a height that is indicated by the frequency table. Complete the histogram by drawing and shading the correct bar heights.

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. Construct a dot plot of the data and summarize the results. (Example 1)

Number of Tennis Tournaments					
0	2	1	4	0	1
1	0	3	2	6	0

2. The table shows the results of asking a group of teachers the question *How many students are in your homeroom?*. Construct a histogram to represent the data. (Example 2)

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

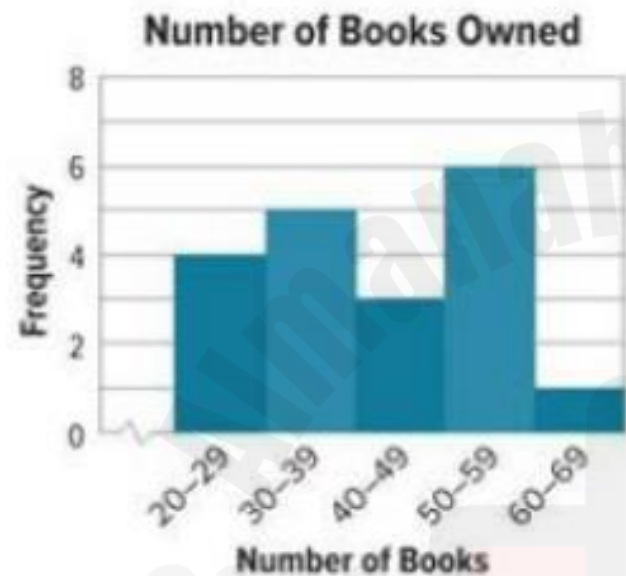
3. The table shows the results of asking a group of students the question *How many hours per month do you volunteer?*. Construct a histogram to represent the data. (Example 2)

Hours Spent Volunteering						
48	30	21	10	1	40	19
10	5	40	39	20	9	40
31	45	29	40	18	49	31
24	32	15	0	15	27	12

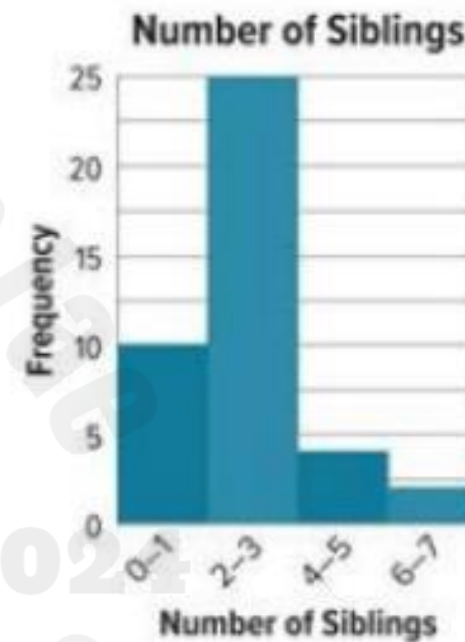
5. Lou wanted to determine how much his friends pay for video games. He surveyed them using the question *How much did you pay for the last video game you bought?* The responses were \$29, \$45, \$50, \$55, \$34, \$28, \$35, \$35, \$45, \$30, \$34, and \$55. How many more games cost between \$30 and \$39 than between \$40 and \$49?



6. Provide a data set that can be represented by the histogram shown.

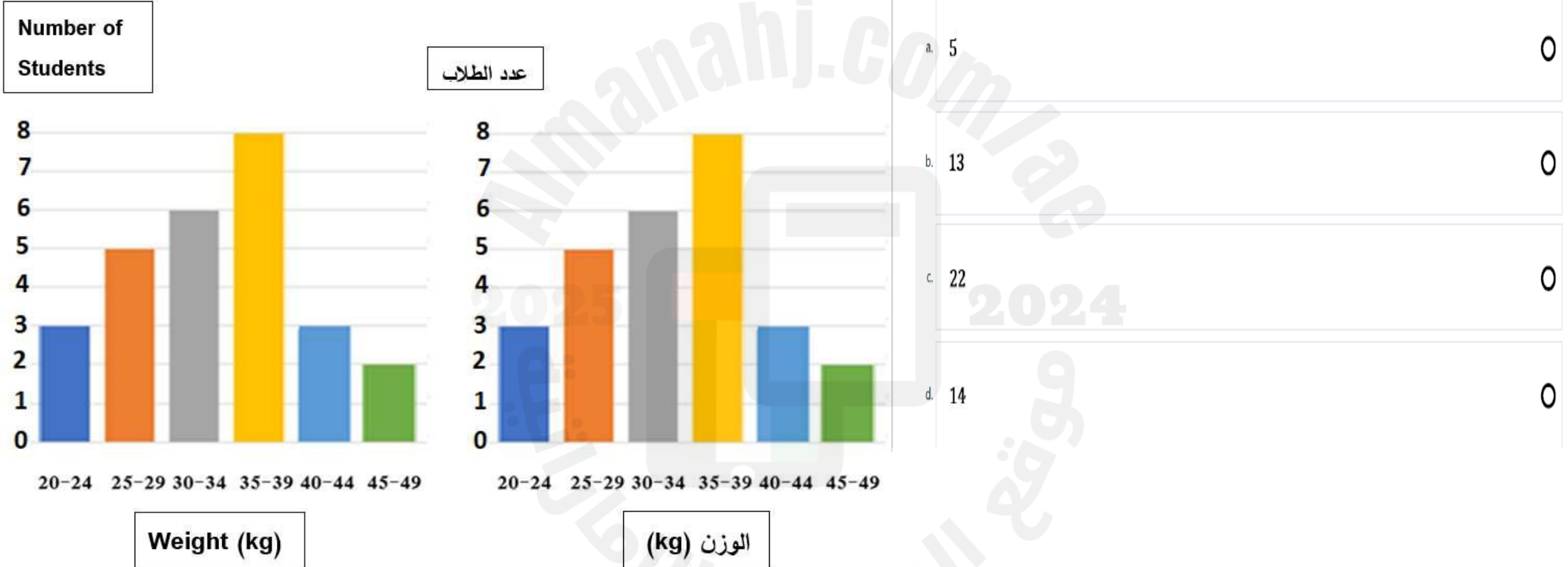


7. **MP Make a Conjecture** Refer to the histogram. In one or two sentences, write a conclusion you can make about the data.



The histogram shown in the figure below shows the weights of a group of students in kilograms. Find how many students their weights where less than or equal 39 kilograms.

المدرج التكراري الموضح في الشكل أدناه يوضح أوزان مجموعة طلاب بالكيلوجرام. أوجد عدد الطلاب الذين أوزانهم أقل من أو يساوي 39 كيلوجرام.



20	Interquartile Range and Box Plots	Example 3 + check	565 & 566
		(1-5)	567

Example 3 Construct and Interpret Box Plots

The table shows the recorded speeds of cars traveling on a country road.

Car Speeds (mph)									
25	35	27	22	34	40	20	19	23	25

Construct a box plot to represent the data. Then describe the distribution of the data.

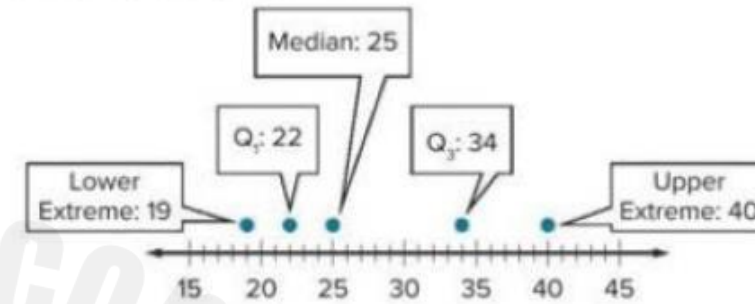
Part A Construct a box plot.

Step 1 Order the values from least to greatest.

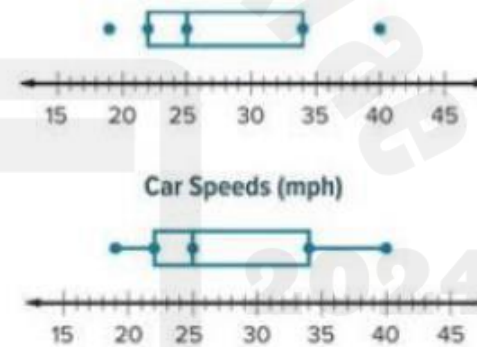
In order from least to greatest, the speeds are 19, 20, 22, 23, 25, 25, 27, 30, 34, 35, and 40 miles per hour.

Step 2 Graph the values above a number line.

Find the median, the extremes, and the first and third quartiles. Graph the values above a number line.



Step 3 Draw the box plot.

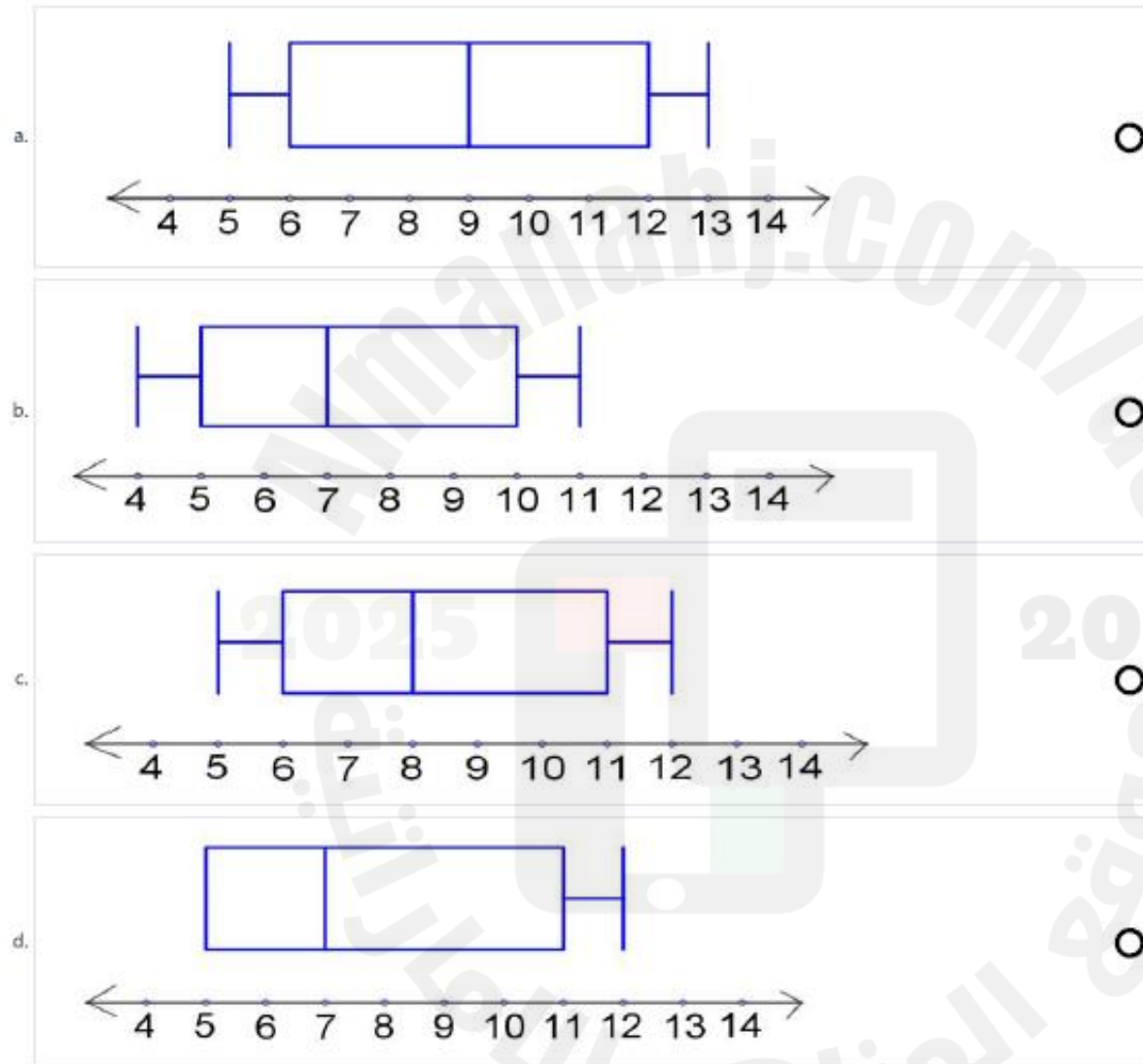


Draw a box around the first quartile and the third quartile. Draw a line through the median.

Draw a line from the first quartile to the least value. Draw a line from the third quartile to the greatest value. Add a title.

Which of the following box plots
represents the data:
6, 9, 4, 7, 11, 10, 5.

أي من مخططات الصندوق ذي العارضين التالية
تمثل البيانات: 6, 9, 4, 7, 11, 10, 5.



Check

Earthquakes occur at different depths below Earth's surface. Stronger earthquakes happen at depths that are closer to the surface. The table shows the depths of recent earthquakes, in kilometers.

Depth of Recent Earthquakes (km)						
5	15	1	11	2	7	3
9	5	4	9	10	5	7

Part A Construct a box plot to represent the data.



Part B Describe the distribution of the data.



1. Cameron surveyed her friends about the number of apps they use. The responses were 15, 16, 18, 9, 18, 4, 19, 20, 17, and 36 apps. Use the range and interquartile range to describe how the data vary. (Example 1)

2. The table shows the number of hours different animals spend sleeping per day. Use the range and interquartile range to describe how the data vary. (Example 1)

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

Find the interquartile range of the
data: 35, 40, 45, 55, 60, 66, 70.

أوجد المدى الربعي للقيم:
35, 40, 45, 55, 60, 66, 70

a.

26



b.

55



c.

35

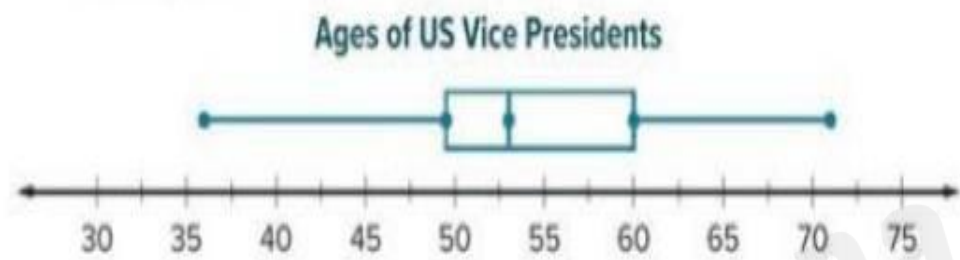


d.

53



3. The box plot shows the ages of vice presidents when they took office. Describe the distribution of the data. What does it tell you about the ages of vice presidents? (Example 2)



4. The ages of children taking a hip-hop dance class are 10, 9, 9, 7, 12, 14, 14, 9, and 16 years old. Construct a box plot of the data. Then describe the distribution of the data. (Example 3)

Test Practice

- 5. Open Response** The cost of tents on sale at a sporting goods store are \$66, \$72, \$78, \$69, \$64, \$70, \$67, \$72, and \$66. Use the range and interquartile range to describe how the data vary.



The heights of 6 students in centimeters are:

135, 124, 111, 160, 150, 160,
find the mode of the data.

أطوال 6 طلاب بالسنتيمتر هي:

135, 124, 111, 160, 150, 160
أوجد المنوال للقيم.

a. 135

☐

b. 140

☐

c. 160

☐

d. 147.5

☐