تجميعة أسئلة مراجعة 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: 2025-06-14 23:03:12	
ملفات اكتب للمعلم اكتب للطالب ا اختبارات الكترونية ا اختبارات ا حلول ا عروض بوربوينت ا أوراق عمل منهج انجليزي ا ملخصات وتقارير ا مذكرات وبنوك ا الامتحان النهائي ا للمدرس	المزيد من مادة رياضيات:
إعداد: مدرسة المعالي	

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

Math Revision

EoT3 Exam Coverage

مراجعه الصف السادس الفصل الدراسي الثالث

(طبقا لهيكل الاختبار)   2024 / 2025

مـدرسة المـعالي للتعليم الأساسي ح2 - الـعين
Al Maali School for Basic Education - Al Ain

Reveal Math
Grade 6
End of Term 3

Module - 8

Module 8 – Area

الأسئلة الموضوعي / MCQ			
Out come		**Lesson**	**Practice**	**Page**
Q-1	M8-1-Area of Parallelograms		Example 1 + Example 2	437 & 438
			Exercise (1-5)	Page: 441
Q-2	M8-1-Area of Parallelograms		Exercise (7,8,9)	Page: 442
Q-3	M8L3 - Area of Trapezoids		Example 4 + Check	457
			(1-6)	461
Q-4	M8L3 - Area of Trapezoids		Example 5 + Check	458
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Q-5	M8L4 – Area of Parallelograms		Example 1 + Check	464
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⊕ 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.

30 in.

$6\frac{3}{4}$ in.
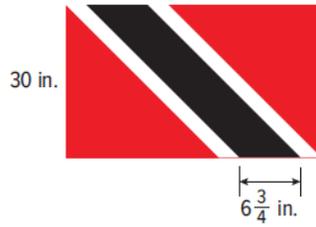
Example 2 Find Missing Dimensions of Parallelograms

Find the missing dimension of the parallelogram.

9 in.

h

$A = 45$ in²
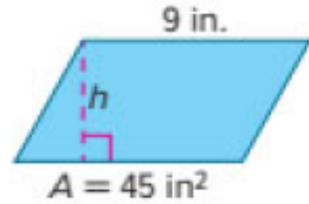
1. The pattern shows the dimensions of a quilting square that Nakida will use to make a quilt. How much blue fabric will she need to make one square? (Example 1)

6.1 in.

red   red

purple

blue   3 in.

8.2 in.

green

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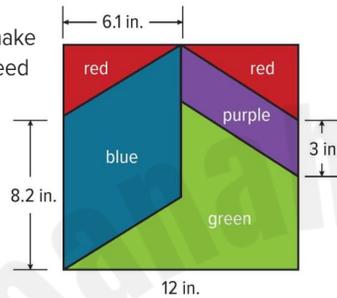
2. A group of students is painting the flag of Brunei for a geography project. Joseph is responsible for painting only the background colors of the flag. How many square inches will he cover with white paint? (Example 1)

yellow
white
black
yellow

$8\frac{1}{2}$ in.
7 in.

72 in.

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

4 m

b

$A = 28$ m²
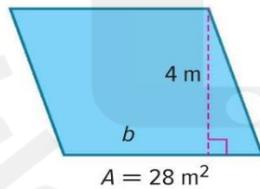
4. Find the missing dimension of the parallelogram. (Example 2)

8 in.

h

$A = 40$ in²
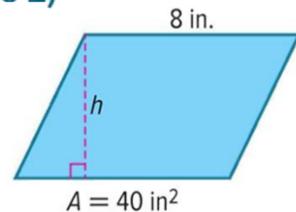
5. Find the area of the yellow striped region of the flag of the Republic of the Congo.

green   yellow
6.8 in.
2 in.   red
8 in.

5.2 in.

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?

10 ft

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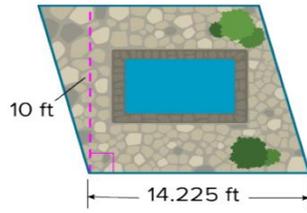
8- Tara and Veronica are making a parallelogram-shaped banner for a football game. They will paint the entire banner except for a rectangular section where a photo of the school's mascot will be placed. The photo of the mascot has an area of 6 square feet. If a 16-ounce bottle of primer covers 24 square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

9 ft

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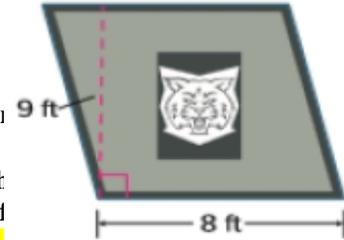
9. **MP Identify Structure** Find the area of the shaded region.

31 mm

13 mm

6 mm

18 mm
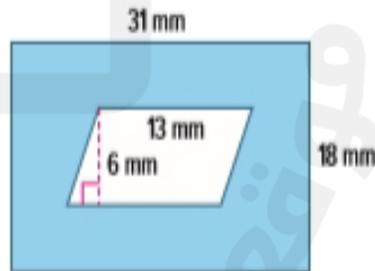
🌐 Example 4 Find Area of Trapezoids

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.

16.5 ft   4.5 ft

6.3 ft
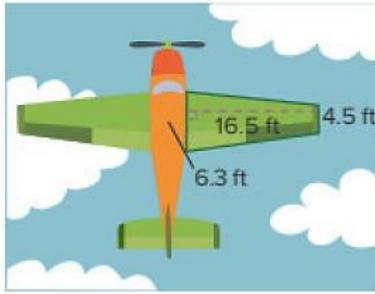
Check

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

Show your work here
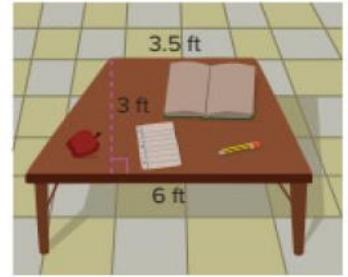
3.5 ft

3 ft

6 ft

## Find the area of each trapezoid. (Example 2)

12 cm

10 cm

9 cm

2. 2 ft   7 ft   2 ft

7 ft

7 ft

7 in.

6 in.

5 in.
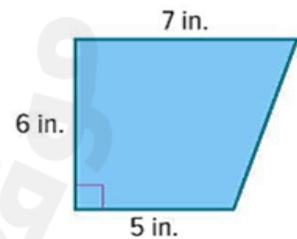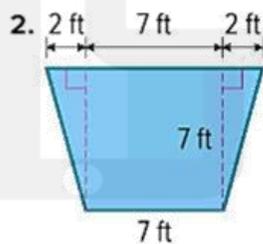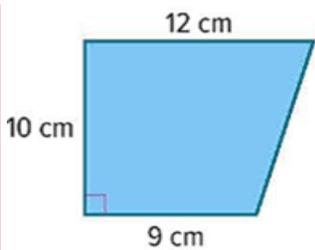
Find the area of each trapezoid. (Example 2)

4.

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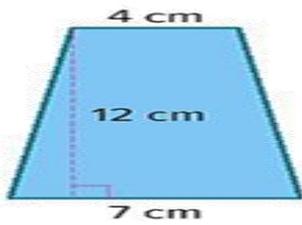
5. The shape of Arkansas resembles a trapezoid. What is the approximate area of Arkansas? (Example 3)

475 km
Arkansas ★
400 km
300 km
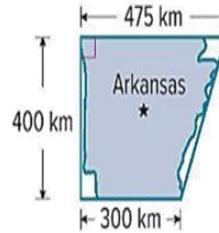
6. The top of the desk shown is in the shape of a trapezoid. What is the area of the top of the desk? (Example 4)

36 in.
24 in.
18 in.

**Example 5** Find Missing Dimensions of Trapezoids

Find the missing dimension of the trapezoid.

12 ft
h
15 ft
$A = 108 \text{ ft}^2$
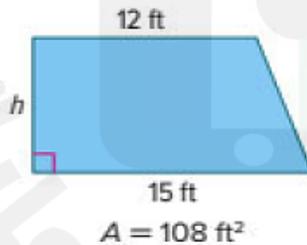
Check

Find the missing dimension of the trapezoid.
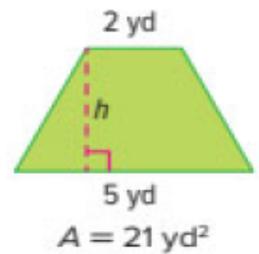
2 yd
h
5 yd
$A = 21 \text{ yd}^2$

7. Find the missing dimension of the trapezoid.
(Example 5)

8 in.

h

12 in.

$A = 40$ in²
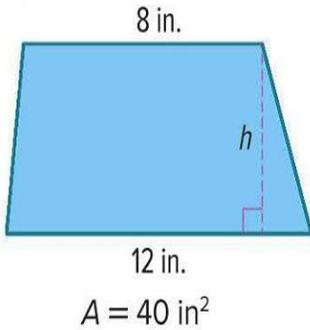
8. Open Response Ciro made a sign in the shape of a trapezoid. What was the area of Ciro's sign?

1.5 ft

2 ft

3 ft
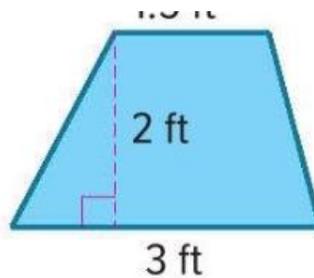
9. Greta has budgeted $1,500 to have a concrete patio poured in her backyard like the one shown. The cost per square foot of the concrete is $5.50. Find the cost of the patio to determine if Greta has budgeted enough money to complete the project.

28 ft

15 ft

6 ft

15 ft

8 ft
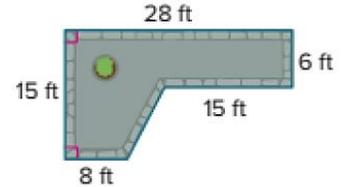
Example 1 Find Area of Regular Polygons

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.

15 in.

18 in.

STOP

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.

1.56 in.

1.8 in.

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

3.03 in.

3.5 in.

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)

6.54 ft

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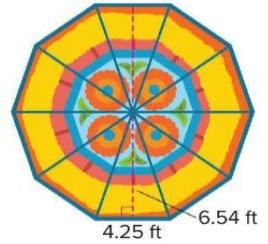
3. **Open Response** A regular pentagon is shown. What is the area of the pentagon?

8.81 cm

12.8 cm

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 he spend on the top of the picnic table?

3.02 ft

2.5 ft

Module - 8

Module 8 – Area

Q16- PART - 2			
M8-2	**Area of Triangles**	**Check** **(1-11)**	**Page:448** **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?

15 ft
15 ft
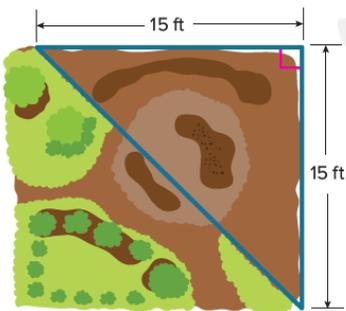
Find the area of each triangle. (Example 1)

1.
6 yd
5 yd

2.
8 ft
8 ft

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

$3\frac{1}{2}$ ft

$6\frac{1}{2}$ ft
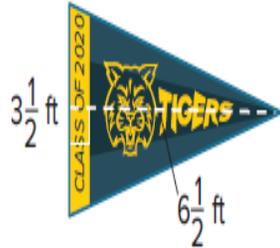
4. Norma has an A-frame cabin. The back is shown below. If the total area of the windows and doors is 3.5 square yards, how many square yards of paint will she need to cover the back of the cabin? (Example 2)

5 yd

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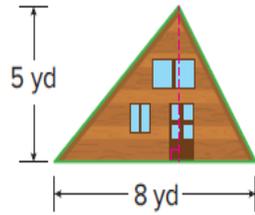
Find the missing dimension in each triangle. (Example 3)

5.

8.6 km

b

A = 38.7 km²

6.

h

6.75 in.

A = 13.5 in²
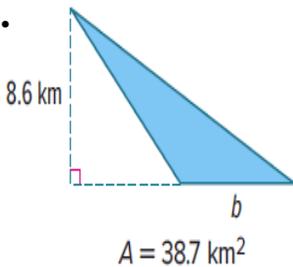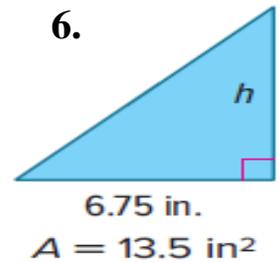
7. The flag of Bosnia and Herzegovina is shown. What is the area of the triangle on the flag?

10 cm   7 cm

17 cm

34 cm
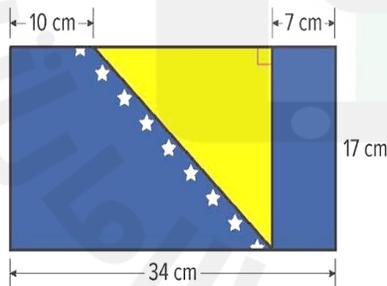
Test Practice

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

7 m

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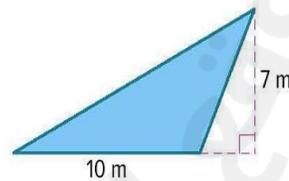
9. Aubrey is painting a mural of an ocean scene. The triangular sail on a sailboat has a base of 6 feet and a height of 4 feet. Aubrey will paint the sail using a special white paint. A container of this paint covers 10 square feet and costs $6.79 per container. How much will Aubrey spend on the white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

4 ft

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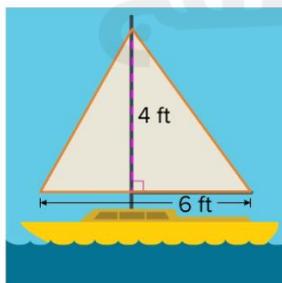
10. Silas is a making a wildflower meadow with the dimensions shown. He plans to cover the entire meadow with a wildflower seed mix. One bag of wildflower seed mix covers 22 square yard and costs $12.79. How much will Silas spend on the wildflower seed mix?

15 yd
10 yd
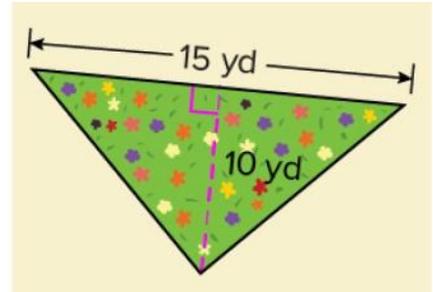
11. Find the Error A student is finding the height of the triangle. Find the student's mistake and correct it.

$17h = 68$

$h = 4$ meters
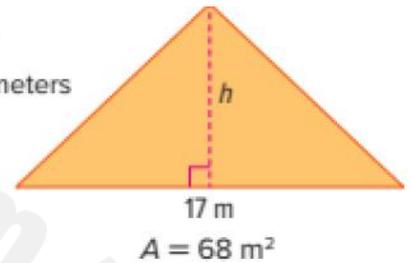
h
17 m
$A = 68$ m²

🌐 **Example 1** Find Perimeter of an Irregular Figure

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

(0, 10) (7, 10)
(11, 7)
(7, 7)
(7, 3)
(11, 3)
(0, 0) (7, 0)
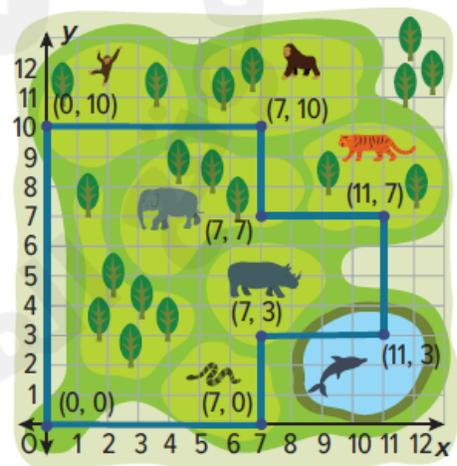
1. Find the perimeter of the summer camp shown on the coordinate plane. (Example 1)
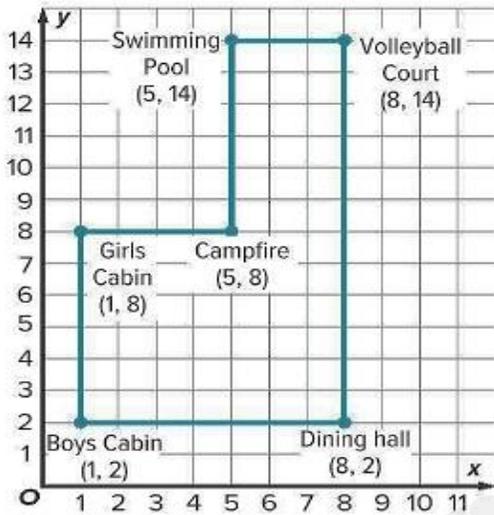
2. Find the perimeter of the science center shown on the coordinate plane. (Example 1)
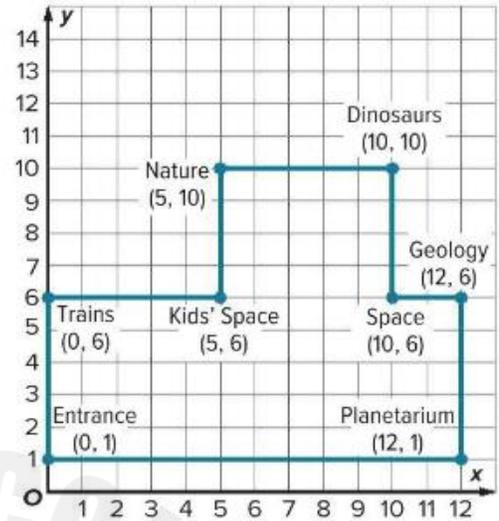
3. A rectangle has vertices $W(2, 7)$, $X(2, 0)$, $Y(6, 0)$, and $Z(6, 7)$. Use the coordinates to find the perimeter of the rectangle. (Example 2)

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)
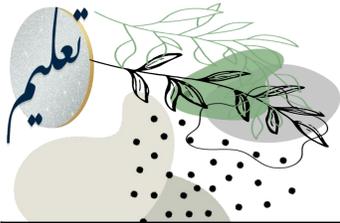
Module - 9

Volume and Surface Area

الأسئلة الموضوعي / MCQ				
	Out come	**Lesson**	**Practice**	**Page**
Q-6	M9L1:Volume of Rectangular Prisms		**Example 2 + Check**	**Page:490**
			Exercise (3,4,5,6,9,10)	**Page:493 & 494**
Q-7	M9L2 :-Surface Areas of Rectangular Prisms		**Example 2 + Check**	**Page: 499 & 500**
			2, 3, 7	**Page: 503 & 504**
Q-8	M9L3 :-Surface Area of Triangular Prisms		**Learn + Example 2**	**Page:508 & 509**
			Exercise (2, 4,5, 8)	**Page:515 & 516**
Q-9	M9L4 :-Surface Area of Pyramids		**Example 3 + Example 4**	**Page:523 & 525**
			Exercise ((1-5))	**Page:529 & 530**

Q 6 - PART - 1			
M9L1	**Volume of Rectangular Prisms**	**Example 2 + Check**	**Page:490**

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?

$4\frac{1}{2}$ in.

6 in.

h
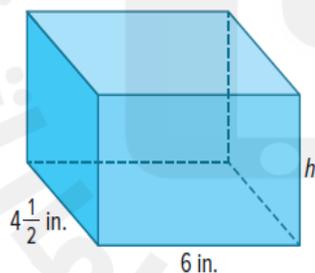
Check

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. _____

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

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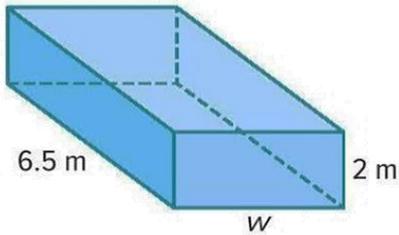
4. The rectangular prism shown has a volume of 115 cubic yards. What is the length of the prism? **(Example 2)**

$2\frac{1}{2}$ yd $5\frac{3}{4}$ yd ℓ
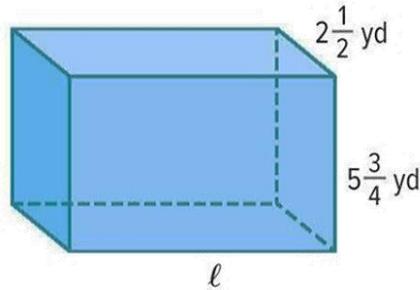
5. Raphael drives a standard-sized dump truck with a rectangular prism shaped bed. The volume of the bed of the truck is 720 cubic feet. If the length of the bed is 15 feet and the width is 8 feet, what is the height of the bed of the dump truck?

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?

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

$h = 1.5(1.2)(2.5)$

$= 4.5$ cm

2.5 cm h 1.2 cm

$V = 1.5$ cm^3

10. 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.

🌐 **Example 2** Surface Area of a Rectangular Prism

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

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.
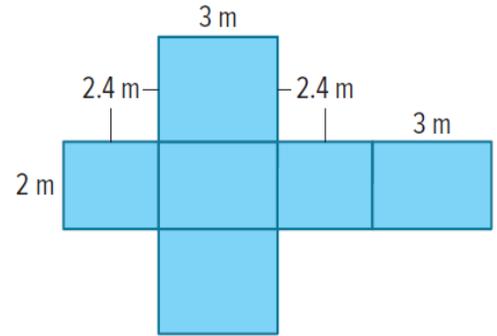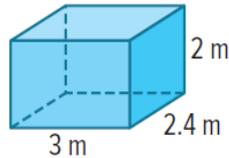
2. Trey is using cardboard to construct building blocks that are shaped like rectangular prisms. Use the net to determine the minimum amount of cardboard he will need to construct one block. (Example 2).
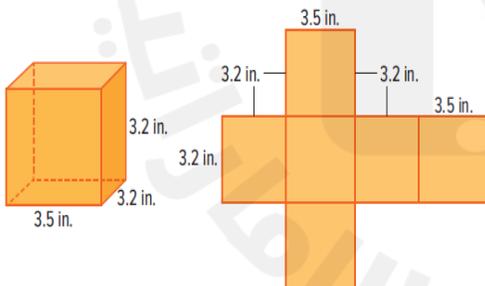
3- Open Response Cody is painting the box shown for part of his art project. If he paints all of the surfaces, how many square centimeters will he paint? Use the net to find the surface area of the rectangular prism.
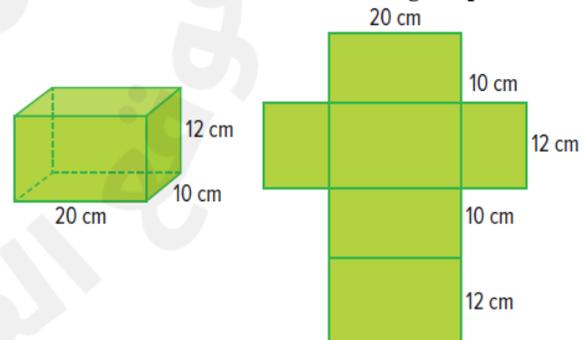
Block A

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.
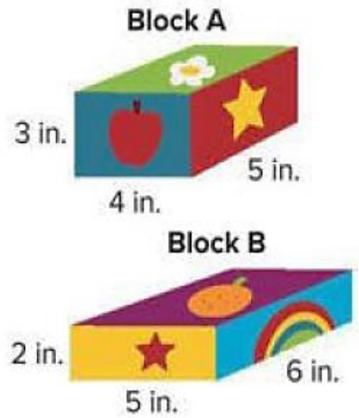
3 in.
4 in.
5 in.

Block B

2 in.
5 in.
6 in.

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.

Step 1 Find the area of the triangular bases.

The triangles are congruent, so the area of each triangular base is the same. Find the area of one base. Then multiply by 2 to find the total area of both bases.

$A = \frac{1}{2}bh$ Area of a triangle

$A = \frac{1}{2}(6)(4)$ $b = 6$ and $h = 4$

5 in.
5 in.
9 in.
4 in.
6 in.

9 in.
6 in.
5 in.
5 in.
4 in.
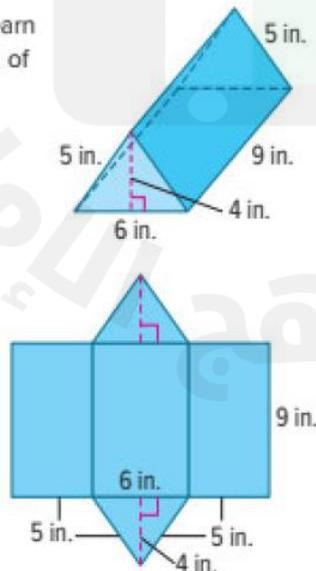
Example 2 Surface Area of a Triangular Prism

Use the net to find the surface area of the triangular prism.
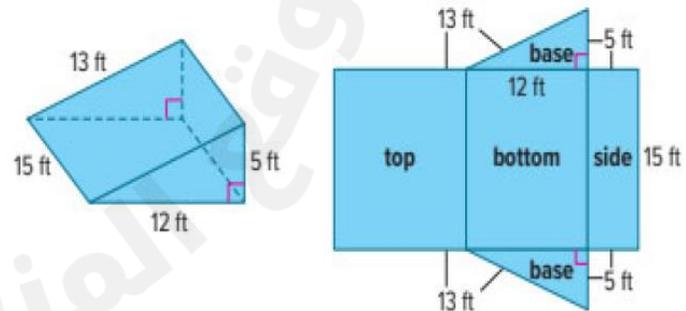
13 ft
13 ft
15 ft
5 ft
12 ft

13 ft
base
5 ft
12 ft
top
bottom
side
15 ft
base
13 ft
5 ft

2- Use the net to find the surface area of the triangular prism.
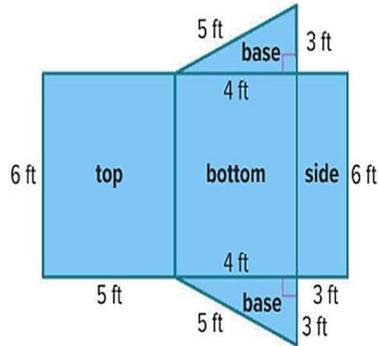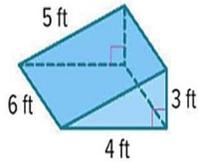
4. Mr. Saldivar is building a ramp in the shape of a triangular prism with the dimensions shown. Sheets of plywood are 8 feet long and 4 feet wide. What is the minimum number of sheets of plywood he needs to buy in order to have enough to build the ramp?
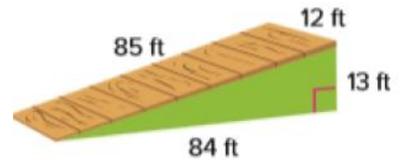
5. A tent is in the shape of the triangular prism with the dimensions shown. If the canvas to make the tent costs $4.99 per square yard, how much will it cost for the fabric to make the tent?
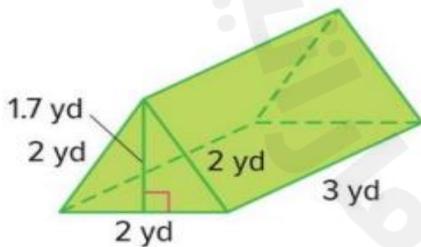
8. **MP** **Find the Error** A classmate found the surface area of the triangular prism shown. Find the error and correct it.

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

Area of Faces
$A = 3(7)(10)$
$A = 210$
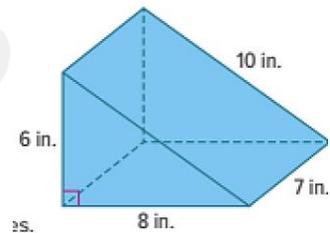
The surface area of the prism is 48 + 210 or 258 square inches.

Example 3 Find Surface Area of a Square Pyramid

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

7.23 cm
7.23 cm
4 cm
4 cm
7.23 cm
4 cm
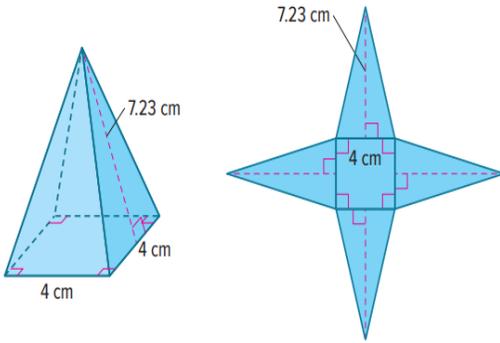
Example 4 Find Surface Area of a Triangular Pyramid

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

9 m   9 m
7.8 m   7.8 m
9 m
9 m   9 m
7.8 m
9 m
7.8 m
9 m
9 m
9 m   9 m
7.8 m
9 m
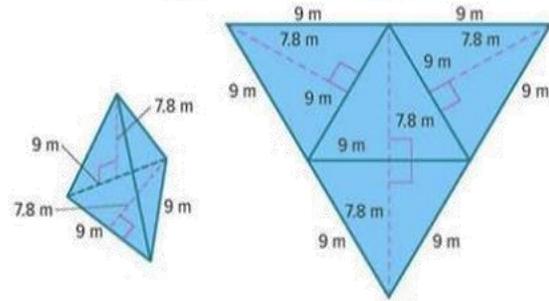
1. Draw and label a net to represent the square pyramid. **(Example 1)**

5.4 ft   5 ft
4 ft
4 ft

A)
4 ft   4 ft
face   face
base
4 ft
face

C)
5.4 ft
face
face   4 ft   face
base
5 ft
face

B)
5.4 ft
face
5 ft
face   4 ft   face
base
face

D)
5.4 ft
face
4 ft
side   base   side
4 ft
face
5 ft
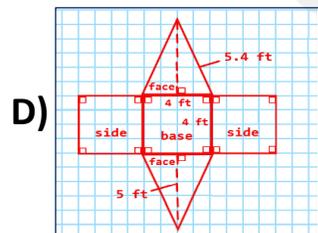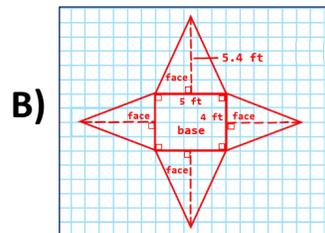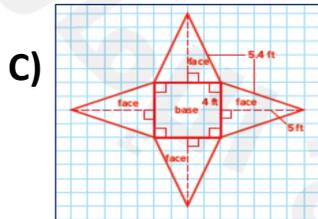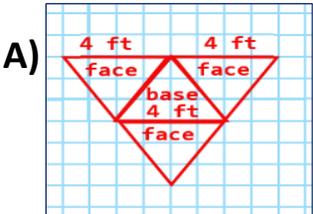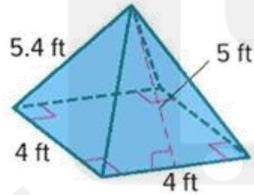
2. Draw and label a net to represent the triangular pyramid. **(Example 2)**

6.9 in.
8 in.
8 in.
6.9 in.
8 in.   8 in.

A)
6.9 in.
face
8 in.
face   6.9 in   face
base
face

B)
face   face
base
6.9 in.
face
8 in.

C)
face   face
base
8 in.
8 in.
face
6.9 in.

D)
face
8 in.
6.9 in.
side   base   side
face
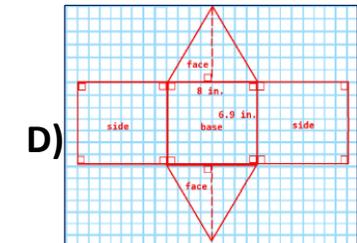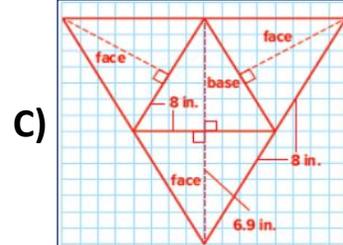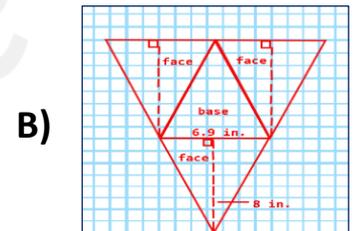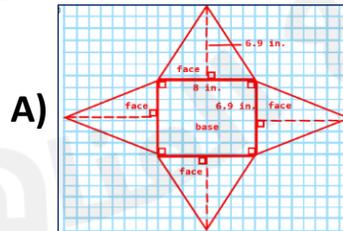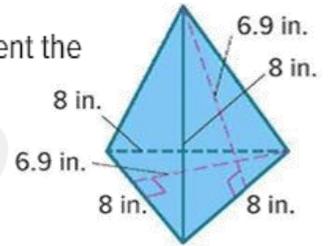
3. Use the net to find the surface area of the pyramid. (Example 3)
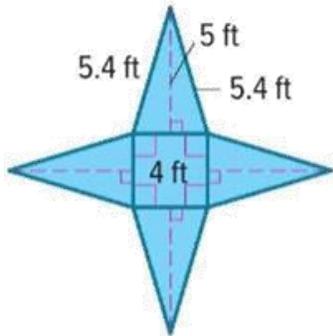
4. **Open Response** Use the net to find the surface area of the pyramid in square inches. (Example 4)
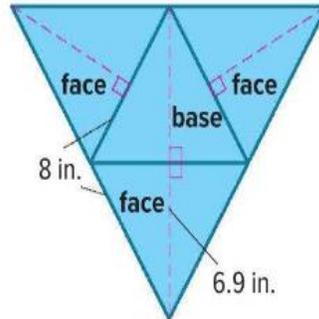
Apply

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?
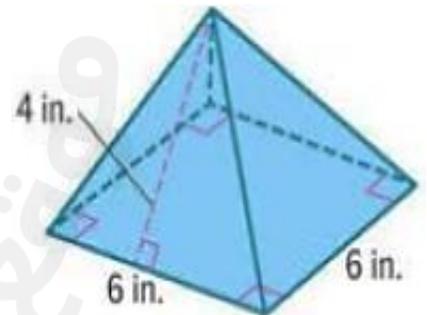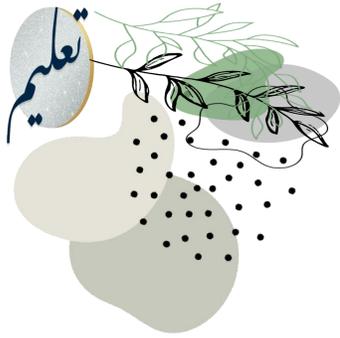
Volume and Surface Area

FRQ - الأسئلة المقالي		
Lesson	**Practice**	**Page**
Q18 M9L1:- Volume of Rectangular Prisms	**Example 1 + Learn**	**Page:487 & 488**
	1,2,5	**493 & 494**

Q 6 - PART - 1		
M9L1	**Volume of Rectangular Prisms**	**Example 1 + Learn** **Page: 487 & 488**

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?

6 in.

SUGAR CUBES

3$\frac{1}{2}$ in.   1$\frac{1}{2}$ in.
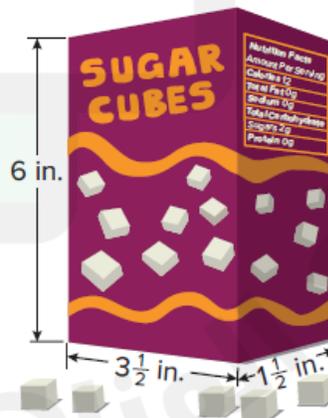
Learn Find Missing Dimensions

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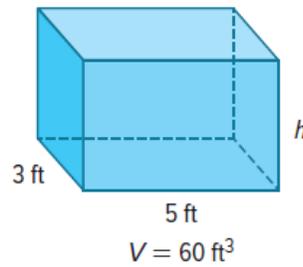
Go Online Watch the animation to learn how to find the missing dimension for the rectangular prism shown.

3 ft

5 ft

h

$V = 60$ ft^3

---

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)

$1\frac{1}{2}$ ft

4 ft

$2\frac{1}{2}$ ft

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)

$3\frac{1}{2}$ in.

4 in.

$6\frac{1}{2}$ in.
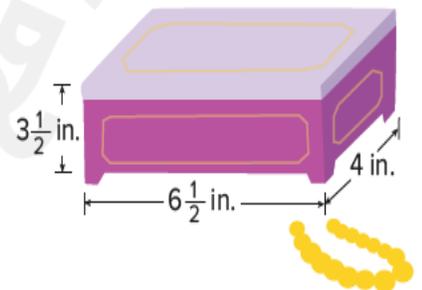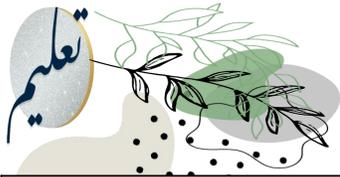
Module - 10

Statistical Measures and Displays

Q10- Part 1

M10L1	Statistical Questions	Exercise (1-8)	Page:541 & 542

Determine whether or not each question is a statistical question. (Example 1)

1. How many continents are there?

2. How many continents has the <u>average</u> student visited?

3. How many sporting events did the <u>average</u> student attend last year?

4. In <u>what year</u> 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.

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.

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

Q10- Part 1			
M10L1	**Statistical Questions**	**Exercise (1-8)**	**Page:541 & 542**

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.

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 oceans are there in the world?

☐ How many times did a typical student go to the zoo last year?

☐ How many classes does each student take?

☐ How many pets does a typical student own?

☐ How many continents are there?

Q11 - Part 1			
M10L3	**Measures of Center**	**Exercise (1 – 8)**	**Page: 559 & 560**

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)**

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

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

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	

⊙ 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.**

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

---

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

Learn Outliers

An **outlier** is a data value that is very far away from the other data values. It can be much greater in value or much less than the other values. Consider the data set shown.

225, 245, 295, 305, 360, 387, 388, 420, 470, 480, 625, 780

How do you know if either of the extreme values, 225 or 780, are considered outliers?

An outlier is defined as a value that lies more than 1.5 times the interquartile range either above Q_3 or below Q_1.

$Q_1 = 300$ Median = 387.5 $Q_3 = 475$

225, 245, 295, 305, 360, 387, 388, 420, 470, 480, 625, 780

IQR = 475 − 300, or 175
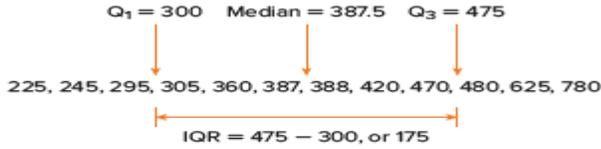
Determine the upper and lower limits for the outliers.

Upper Limit
$Q_3 + (1.5 \cdot IQR)$
= 475 + (1.5 · 175)   *Substitute.*
= 475 + 262.5   *Multiply.*
= 737.5   *Simplify.*

Lower Limit
$Q_1 − (1.5 \cdot IQR)$
= 300 − (1.5 · 175)
= 300 − 262.5
= 37.5

Any data values that are greater than 737.5 or less than 37.5 are outliers. So, the value 780 is an outlier. Because the data set does not contain any values that are less than 37.5, the only outlier is 780.

The box plot represents the data set. Outliers are indicated with an asterisk (*).

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

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

🌐 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.

Number of States Visited
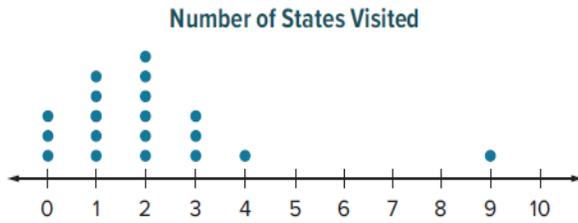
🌐 Example 3 Interpret Box Plots

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

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

Fitness Club Attendance

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)

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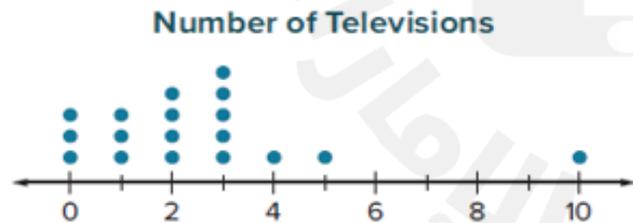
3- The histogram shows the dollars pledged by supporters of an animal shelter. Use clusters, gaps, peaks, outliers, and symmetry to describe the shape of the distribution. (Example 2)

M10L7	Interpret Graphical Displays	1,3,4,5	Page:591
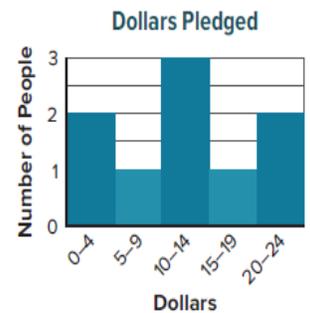
Amount Saved ($)

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)
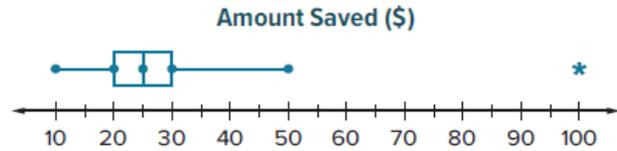
Test Practice

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?

Ticket Prices ($)

Ⓐ 30; 35; 50   Ⓑ 30; 40; 105   Ⓒ 30; 15; 50   Ⓓ 30; 35; 105

M10L7	Interpret Graphical Displays	Example 2 + Learn	Page:586 & 587

🌐 **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.

Solar Eclipses
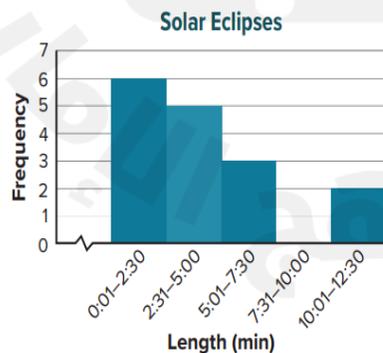
Learn Interpret Box Plots

Although a box plot does not show individual data values, you can still describe the distribution of data.

Box plots are constructed using the median and interquartile range, so use those measures to describe the center and variation of the data. Because a box plot does not show individual data values, the mean cannot be found, unless the data are perfectly symmetric. In this case, the mean and the median have the same value.

Box plots do indicate symmetry.

If the whiskers are all the same length, and the median line divides the box into two equal-sized boxes, then the distribution is symmetric.

If the boxes and whiskers are of varying lengths, then the distribution is not symmetric.
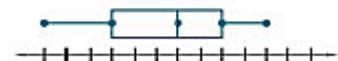
Outliers are represented by an asterisk (*) on a box plot. Whiskers will not extend to outliers, but instead to the previous or next data value.
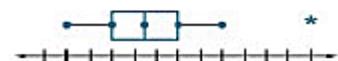
6. The histogram shows the number of candy bars each player on a football team sold. One player claimed that more than 50% of the players sold 90 or more candy bars. Is the player correct? Write an argument that can be used to defend your solution.

Candy Bars Sold

*(histogram: Number of Players vs Number of Candy Bars; bins 50–69, 70–89, 90–109, 110–129, 130–149)*
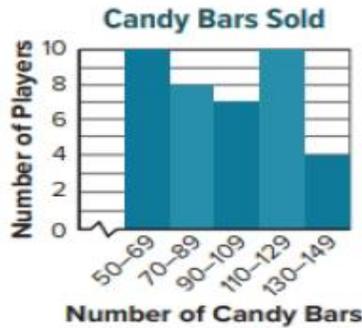
7. The histogram shows the weights of pumpkins picked by students on a pumpkin farm. One student claimed that more than 25% of the pumpkins picked weighed 20 pounds or more. Is the student correct? Write an argument that can be used to defend your solution.

Weights of Pumpkins

(histogram: Number of Pumpkins vs Weight (lb); bins 0–4, 5–9, 10–14, 15–19, 20–24, 25–29)
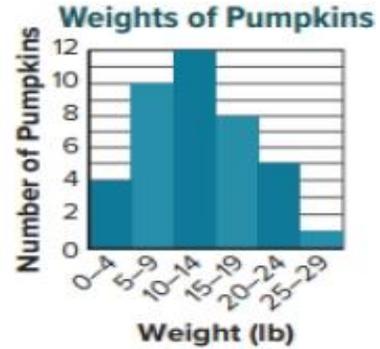
8. Be Precise The dot plot shows the number of runs scored by a baseball team for last season. Use clusters, gaps, peaks, outliers, and symmetry to describe the shape of the distribution.

Symmetric	
Peak	
Clusters	
Gaps	
Outliers	
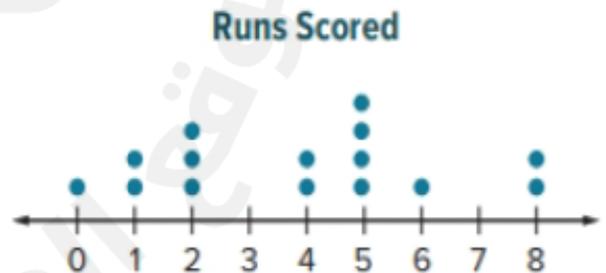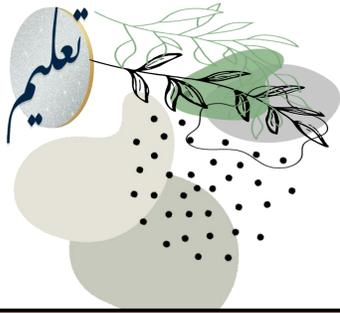
Runs Scored

(dot plot over number line 0 to 8)

Statistical Measures and Displays

Q19 - Part 2		
M10L2	**Dot Plots and Histograms**	**Example 1 + Example 2**	**Page:543 & 545**

✷ 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.

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

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

Daily Visitors histogram grid with Frequency (0–10) on the y-axis and Visitors categories (100–149, 150–199, 200–249, 250–299, 300–349, 350–399) on the x-axis.

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

| Homeroom class	
15-17	
18-20	
21-23	
24-26	

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

Hours spent	
0-9	
10-19	
20-29	
30-39	
40-49	

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?

Make a frequency table. Use a scale to include all of the values, $28 through $55, with equallyspaced intervals.

6. Provide a data set that can be represented by the histogram shown.
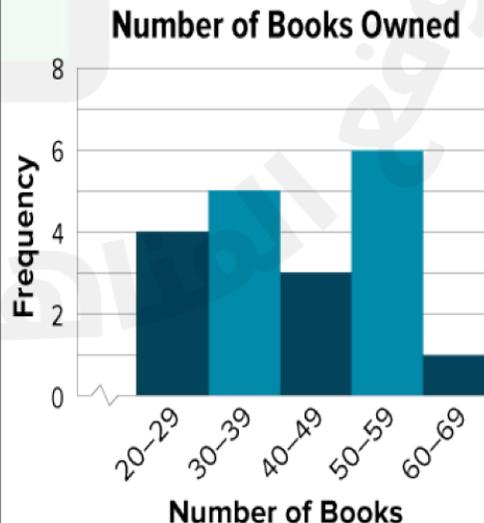
7. Make a Conjecture Refer to the histogram. In one or two sentences, write a conclusion you can make about the data.
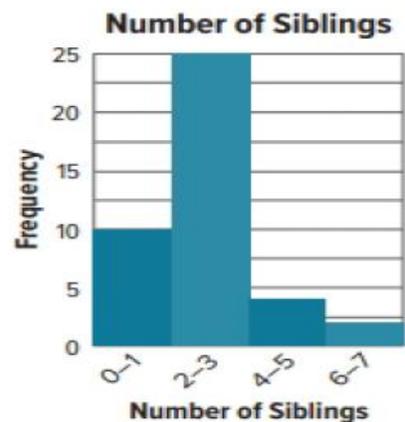
Number of Siblings

⊕ 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.

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

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.

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.

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

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?

Ages of US Vice Presidents
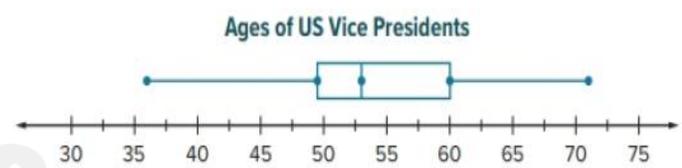
4. The ages of children taking a hip-hop dance class are 10, 9, 9, 7, 12, 14, 14, 9, and 16 years old. Construct a **box plot** of the data. Then describe the distribution of the data.

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.**