

شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية



## تجميع أسئلة وفق الهيكل الوزاري ريفيل

موقع المناهج ← المناهج الإماراتية ← الصف الثامن ← رياضيات ← الفصل الثالث ← الملف

## التواصل الاجتماعي بحسب الصف الثامن



## روابط مواد الصف الثامن على تلغرام

[الرياضيات](#)

[اللغة الانجليزية](#)

[اللغة العربية](#)

[التربية الاسلامية](#)

## المزيد من الملفات بحسب الصف الثامن والمادة رياضيات في الفصل الثالث

<a href="#">أسئلة الامتحان النهائي الورقي ريفيل</a>	1
<a href="#">القوانين الهامة منهج ريفيل مع تدريبات</a>	2
<a href="#">أسئلة الامتحان النهائي الالكتروني ريفيل</a>	3
<a href="#">حل أسئلة الامتحان النهائي الورقي بريدج</a>	4
<a href="#">أسئلة الامتحان النهائي الالكتروني ريفيل</a>	5

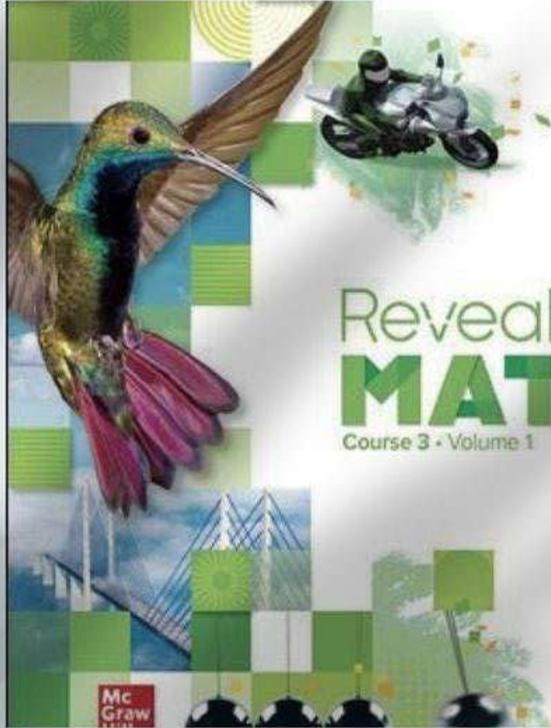
مدرسة زايد الأول.



**MATH DEF**

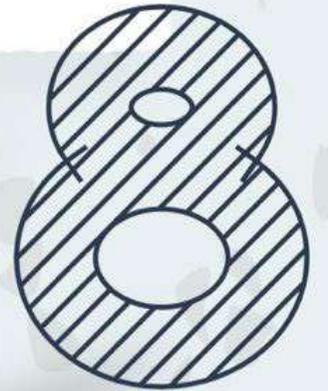


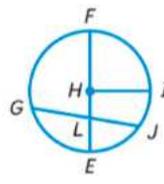
مؤسسة الإمارات  
للتعليم المدرسي  
EMIRATES SCHOOLS  
ESTABLISHMENT



ملف وفيديوهات أسئلة  
الهيكل فصل ثالث  
صف ثامن .  
Eot3 - Math .

Issam Al Dabaibeh.





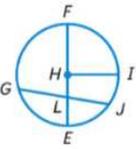
## معلومات عن الاختبار.

Number of Main Questions عدد الأسئلة الأساسية	Part (1) - 10
	Part (2) - 10
	Part (3) - (7~6)
Marks per Main Question الدرجات لكل سؤال أساسي	Part (1) - 3
	Part (2) - 5
	Part (3) - 20
*** Type of All Questions نوع كافة الأسئلة	Part( 1 and 2) MCQ
	Part (3) FRQ
* Maximum Overall Grade *الدرجة القصوى الممكنة	110
Exam Duration - مدة الامتحان	150 minutes
Mode of Implementation - طريقة التطبيق	SwiftAssess & Paper-Based
Calculator	Not Allowed
الآلة الحاسبة	غير مسموحة

Academic Year	2022/2023
العام الدراسي	
Term	3
الفصل	
Subject	Mathematics/Reveal
المادة	الرياضيات / ريفيل
Grade	8
الصف	
Stream	General
المسار	العام



#	The subject. الموضوع	Page .
	QR codes	A
1	Use a composition of transformation.	1
2	Use properties of transformation.	2
3	Determine if two figures are similar.	3
4	Find the missing measures.	4
5	Find the volume of the cylinder.	5
6	Find the volume of the cones.	6
7	Find the volume of the composite figures.	7
8	Describe the association in the scatter plot.	9
9	Draw the line of fit in scatter plot.	11
10	Find the equation for the line in scatter plot.	13
11	Find the volume of the sphere, hemisphere.	15
12	Construct and interpret a two-way table using relative frequencies.	17
13	Solve indirect measurement problems.	21
14	Additional questions.	23

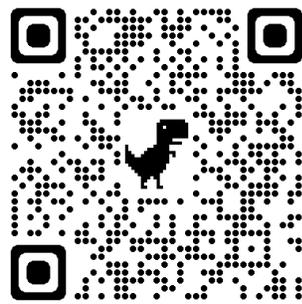


قم بعمل مسح Scan للوصول للفيديو للصفحة المطلوبة.

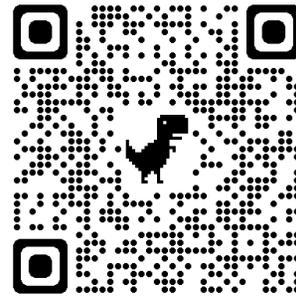
PAGE 1.



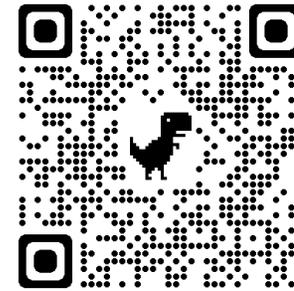
PAGE 2.



PAGE 3.



PAGE 4.



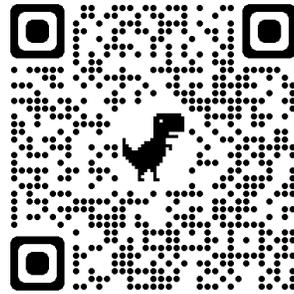
PAGE 5.



PAGE 6.



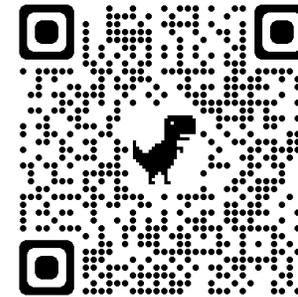
PAGE 7,8



PAGES 9,10



PAGES 11,12.



PAGES 13,14.



PAGES 15,16.



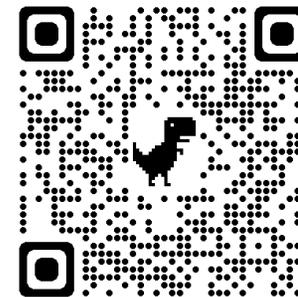
PAGE 17,18.

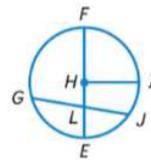


Page 19,20.



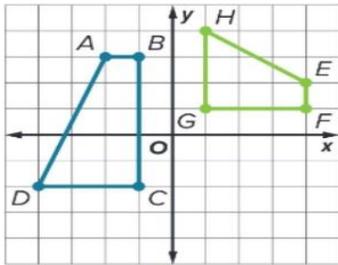
Page 21,22.





1. Use a composition of transformations, as well as the orientation of figures, to determine if two figures are congruent.

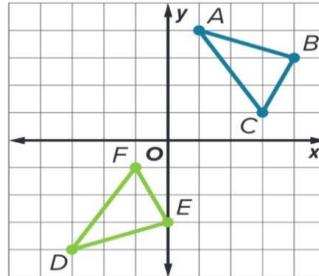
1.



- a. Congruent.
- b. Not Congruent.

The sequence:

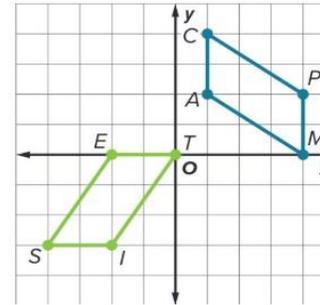
2.



- a. Congruent.
- b. Not Congruent.

The sequence :

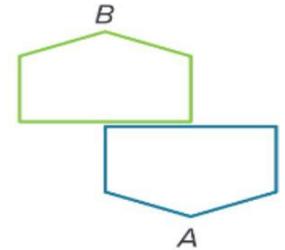
3.



- a. Congruent.
- b. Not Congruent.

The sequence :

4.



- a. Congruent.
- b. Not Congruent.

The sequence:

5.

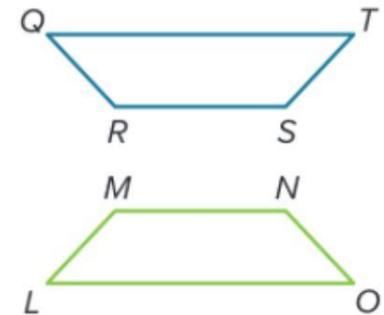


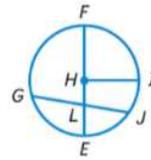
- a. Congruent.
- b. Not Congruent.

The sequence:

6. What transformation maps Trapezoid QRST onto trapezoid LMNO ?

- a. Dilation about vertex R.
- b. Vertex translation.
- c. Reflection across a horizontal line.
- d. Rotation about vertex Q.

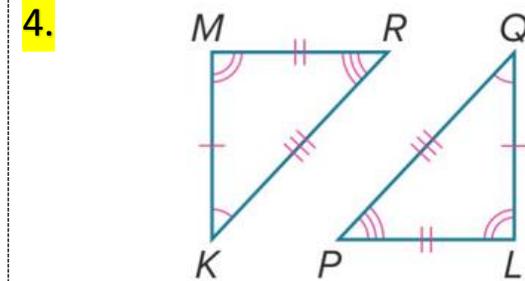
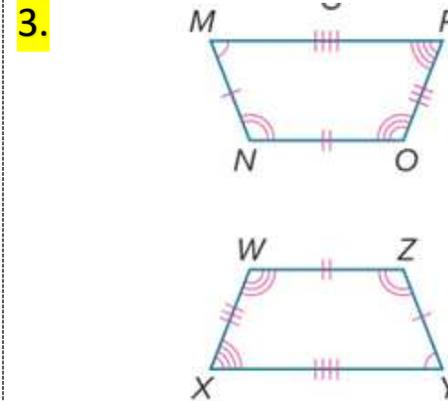
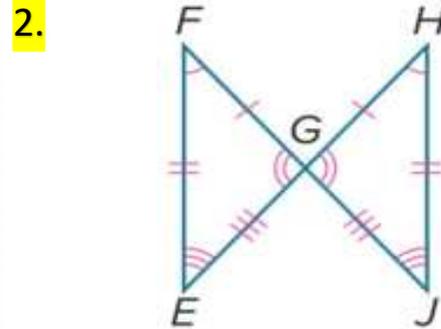
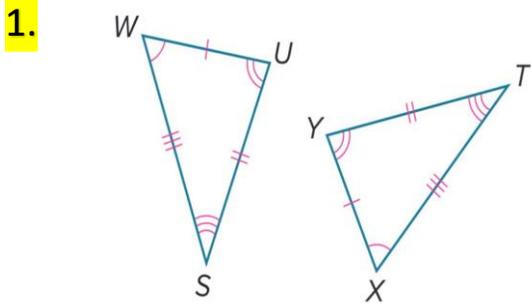




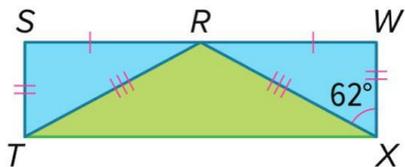
Math DEF.

EoT3 – Grade 8

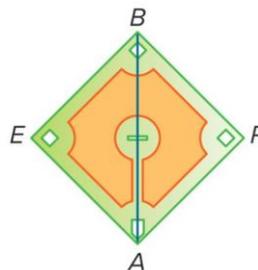
2. Use the properties of rotations, reflections, and translations to identify congruent parts of congruent figures and to find missing measures.



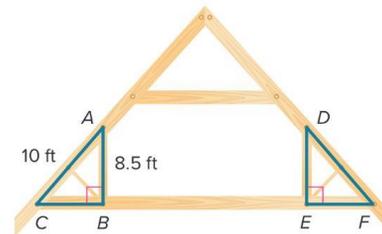
5.  $\triangle RST \cong \triangle RWX$ . If  $m \angle WXR = 62^\circ$ , what is the measure of  $\angle STR$ ?



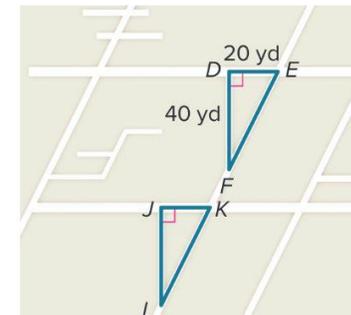
6.  $\triangle BEA \cong \triangle ARB$ . The length of BE is 90 feet. What is the length of AR?

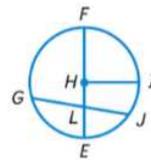


7.  $\triangle ABC \cong \triangle DEF$ . if  $AB = 8.5$  feet and  $AC = 10$  feet, what is the length of EF?



8.  $\triangle DEF \cong \triangle JKL$ . What is the distance from K to L?





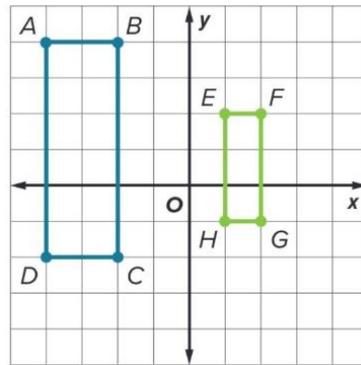
3. Determine if two figures are similar by determine a sequence of rotations, reflections, translations and dilations that maps one similar figure onto another .

Determine if each pair of figures is similar. If so, describe a sequence of transformation.

1.

- a. Similar.
- b. Not Similar.

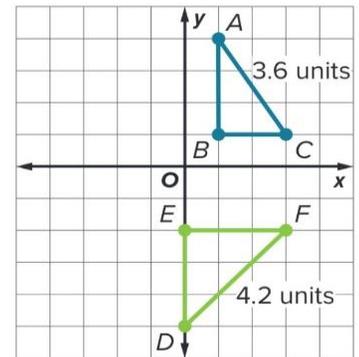
The sequence :



2.

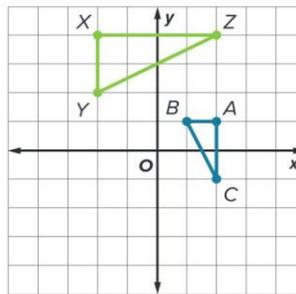
- a. Similar.
- b. Not Similar.

The sequence :



3.

Triangle ABC is similar to  $\triangle XYZ$ . Determine which sequence of transformations maps  $\triangle ABC$  onto  $\triangle XYZ$ .



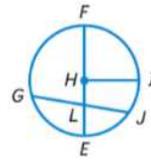
4.

Jenna is creating a mural for her bedroom wall. She would like to copy a picture that is 2 inches by 2.5. She uses a copy machine to enlarge it by a scale factor of 4. Then she projects it on her wall by a scale factor of 12. What are the dimensions of the mural?

5.

Which sequence of transformations can be used to show that two figures are similar but not necessarily congruent?

- |    |                             |                                 |
|----|-----------------------------|---------------------------------|
| a. | a. Dilation and rotation.   | b. Translation and reflection.  |
| c. | a. Reflection and rotation. | d. a. Rotation and translation. |

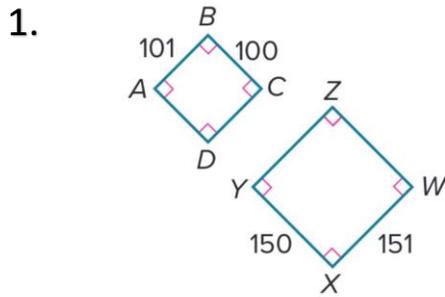


Math DEF.

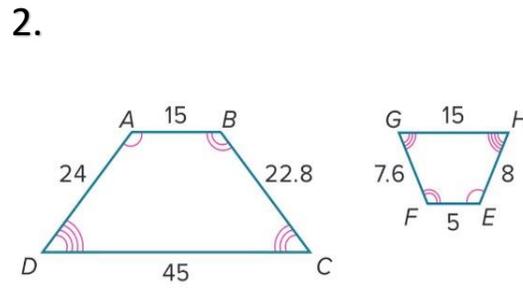
EoT3 – Grade 8

4. Use properties of similar figures to determine similarity and to find missing measures.

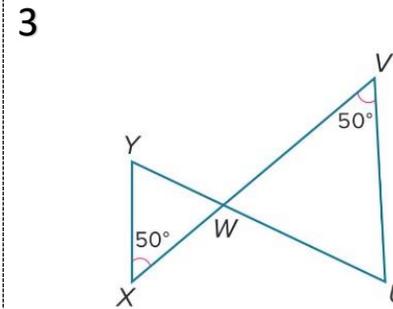
Determine whether each pair of polygons is similar. If so, write a similarity statement.



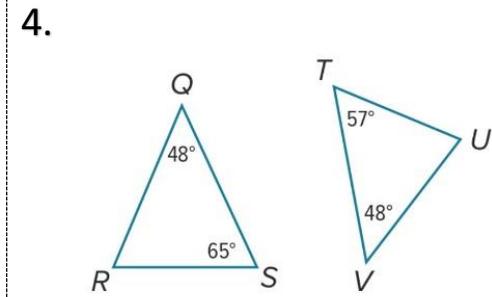
- a. Similar.  
b. Not Similar.



- a. Similar.  
b. Not Similar.

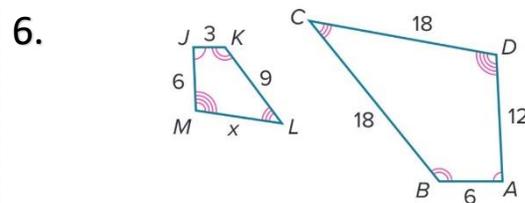
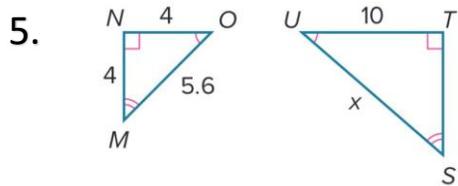


- a. Similar.  
b. Not Similar.

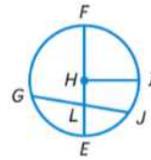


- a. Similar.  
b. Not Similar.

Each pair of polygons is similar. Find missing side measure.



7. JK= 35 cm, KL=25 cm, LJ= 25 cm, MN= 28 cm

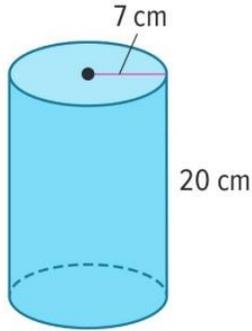


Math DEF.

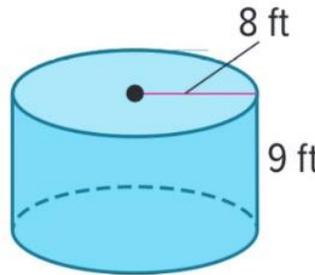
EoT3 – Grade 8

5. Use the formula for the volume of a cylinder to find the volume of a cylinder given its diameter or radius and the height.

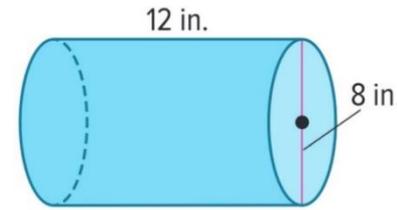
1.



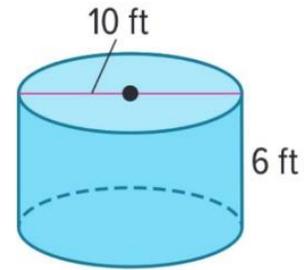
2.



3.



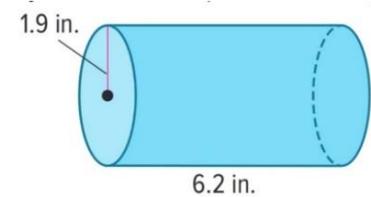
4.



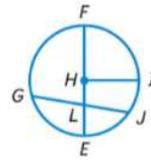
**Question five:** A wooden toy block is in the shape of cylinder. The toy block has a **height** of 4 inches and a **diameter** of 3 inches. How much does the toy block weigh if 1 cubic inch of wood weighs 0.55 ounce ? Round to the nearest tenth.

**Question six:** A large rainwater collection tub is shaped like a cylinder. The **diameter** is 28 inches and the **height** is 40 inches. If the tub is 75% filled, what is the volume of water in the tub? Round to the nearest tenth.

**Question six :** What is the volume of the cylinder shown ?



- |    |                        |    |                         |
|----|------------------------|----|-------------------------|
| a. | 22.382 in <sup>3</sup> | b. | 70.279 in <sup>3</sup>  |
| c. | 73.036 in <sup>3</sup> | d. | 229.333 in <sup>3</sup> |



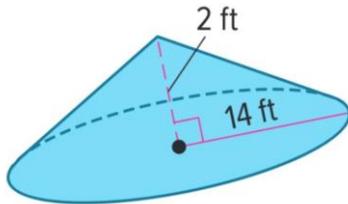
Math DEF.

EoT3 – Grade 8

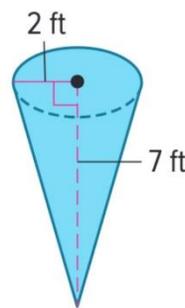
6. Use the formula for the volume of a cone to find the volume of a cylinder given its diameter or radius and the height.

Find the volume of each cone. Express you answer in terms of  $\pi$

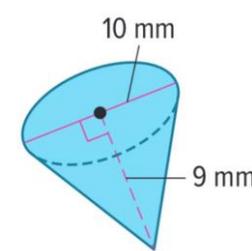
1.



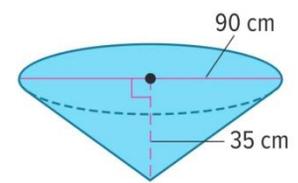
2.



3.



4.



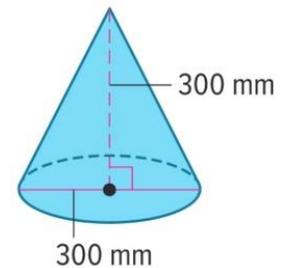
5. A funnel is in the shape of a cone. The radius is 2 inches and the height is 4.6 inches. What is the volume of the funnel.

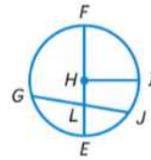
6. Marta bought a paperweight in the shape of a cone. The radius was 10 cm and height 9 cm. Find the volume.

7. A lampshade is in the shape of a cone. The diameter is 5 inches and the height is 6.5 inches. Find the volume.

8. What is the volume of the cone shown.

- |    |                             |    |                             |
|----|-----------------------------|----|-----------------------------|
| a. | $7,068,583.5 \text{ mm}^3$  | c. | $14,137,166.9 \text{ mm}^3$ |
| b. | $21,205,750.4 \text{ mm}^3$ | d. | $229.33304 \text{ mm}^3$    |





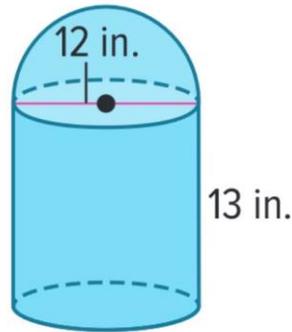
Math DEF.

EoT3 – Grade 8

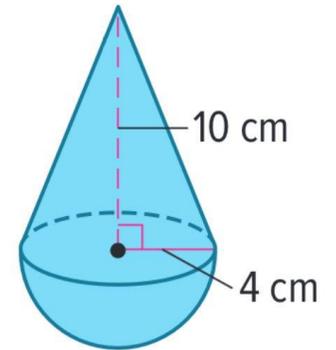
7. Find the volume of a composite figure by decomposing it into cubes, cones, cylinders and spheres and using the known volume formulas for these figures.

Find the volume of each solid. Round to the nearest tenth.

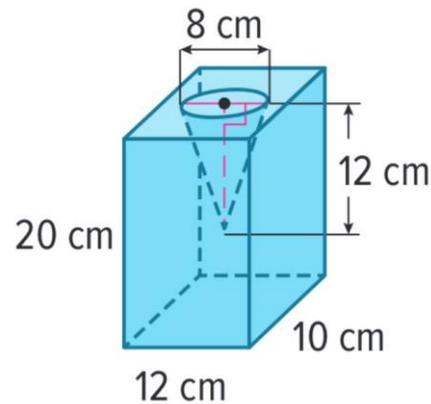
1.



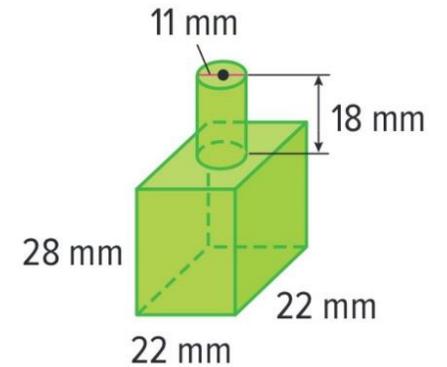
2.



3.

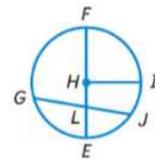
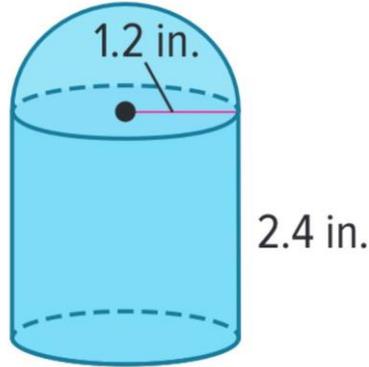


4.



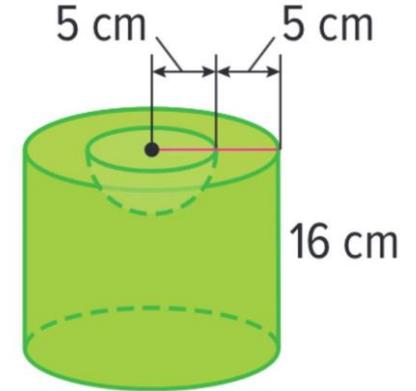
EoT3 – Grade 8

5.

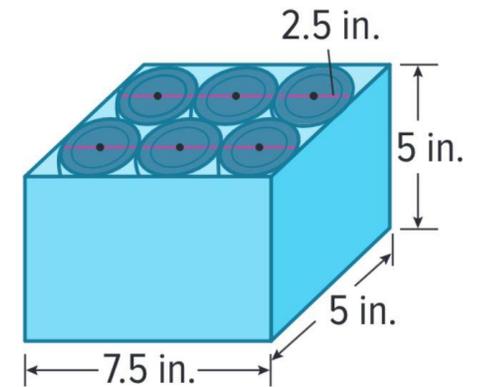


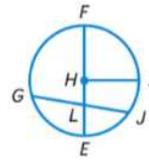
Math DEF.

6.



7. A box contains six identical cans as shown, what percentage of the volume of the box is occupied by the cans ? round to the nearest tenth of a percent.





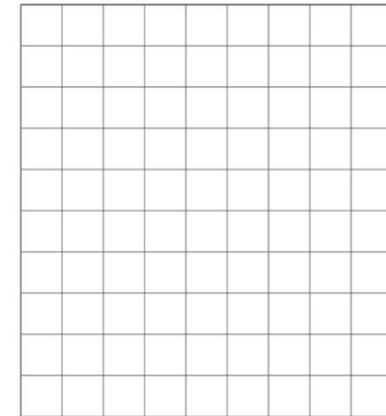
Math DEF.

EoT3 – Grade 8

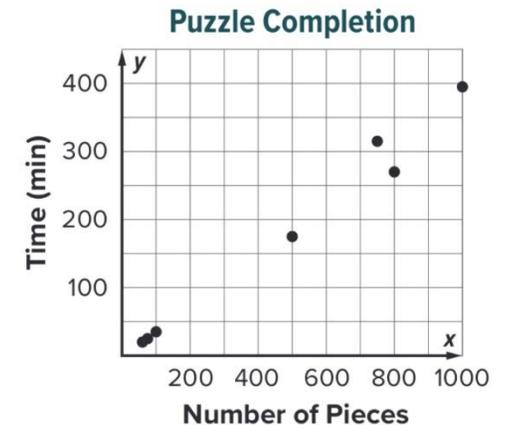
8. Use a set of bivariate data to construct a scatter plot and describe the association as positive or negative and as linear or nonlinear.

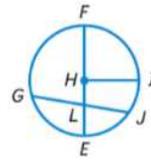
1. The table shows the average points scored per game by an NBA player in the first ten seasons of his career . Construct a scatter plot of the data.

Season	1	2	3	4	5
Average Points Per Game	28.2	22.7	37.1	35.0	32.5
Season	6	7	8	9	10
Average Points Per Game	33.6	31.5	30.1	32.6	26.9



2. The scatter plot shows the relationship between the number of pieces in a jigsaw puzzle and the number of minutes that are recommended to complete the puzzle. Interpret the scatter plot.

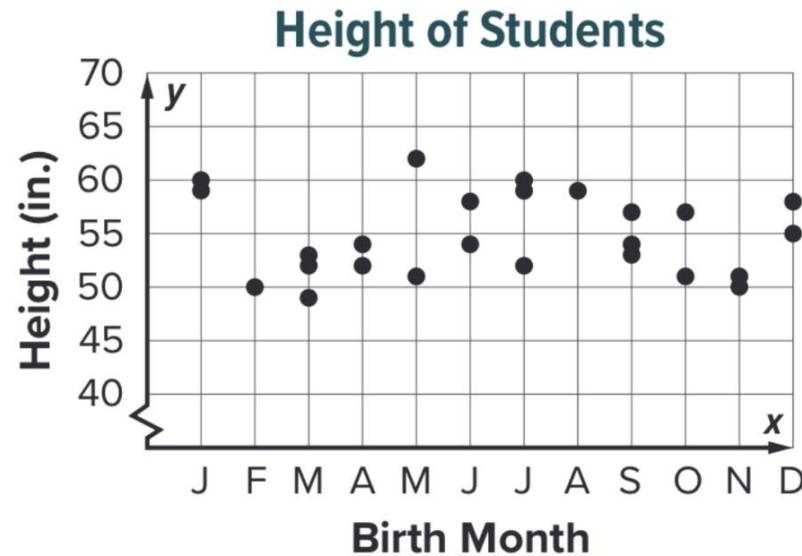




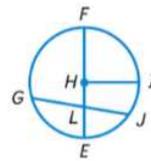
Math DEF.

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3. The scatter plot shows the relationship between the birth month of every student in Mari’s class and their height. Which is the best interpretation of the data ?



- As the months progress, the heights of the students increase . There is a positive, linear association. There are no clusters or outliers.
- The height of a student does not depend on their birth month. The scatter plot shows no association.
- As the months progress, the heights of the students decrease. There is negative, linear association. There are no clusters or outliers .
- As the months progress, the heights of the students are the same. There is a positive, linear association.



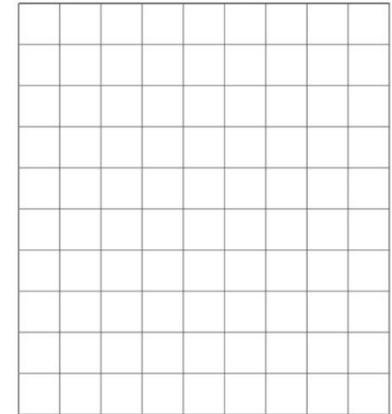
Math DEF.

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9. Use a scatter plot to draw a line that closely fits data and predict values that are not present in the original data set.

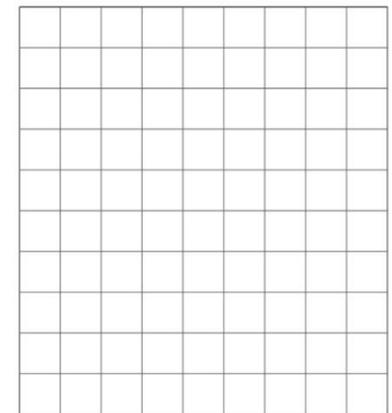
- The table shows the average combined mile per gallon (MPG) and greenhouses gas (GHG) rating for certain mid-size cars. Construct a scatter plot. Then draw and assess a line that seems to represent the data.

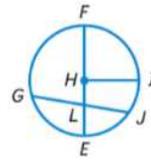
Average MPG	22	25	31	28	16	26
GHG Rating	5	6	7	7	3	6
Average MPG	35	41	24	32	30	23
GHG Rating	8	9	5	8	7	5



- The table shows that fat and Calorie content for several snack foods. Construct a scatter plot. Then draw and assess a line that seems to represent the data.

Fat (g)	1	6	7	8	12	18	20
Calories	200	222	239	274	338	339	385

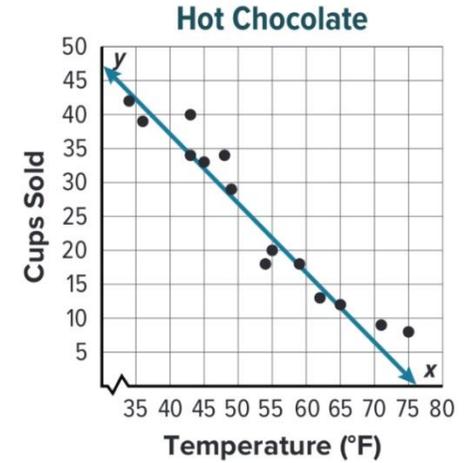




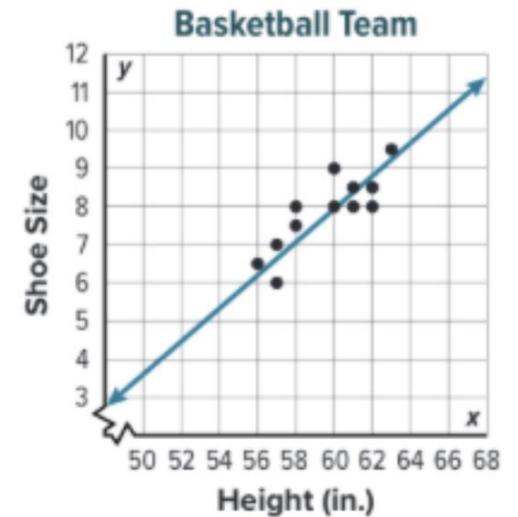
EoT3 – Grade 8

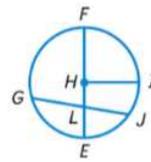
Math DEF.

- The scatter plot shows the number of cups of hot chocolate sold at a football game and the average temperature during the game. Use the line of fit to make a conjecture about the number of cups of hot chocolate sold if the average temperature is  $50^{\circ}\text{F}$ .



- The scatter plot shows the height and shoe size of the players on the boys' basketball team. Use the line of fit to make a conjecture about the shoe size of a boy on the team that is 59 inches tall.





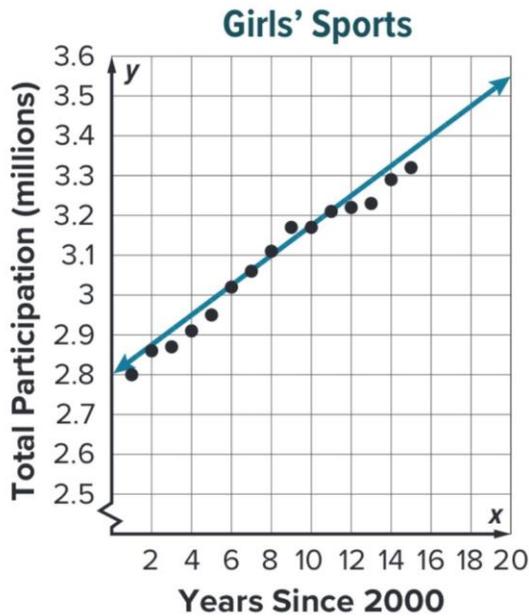
Math DEF.

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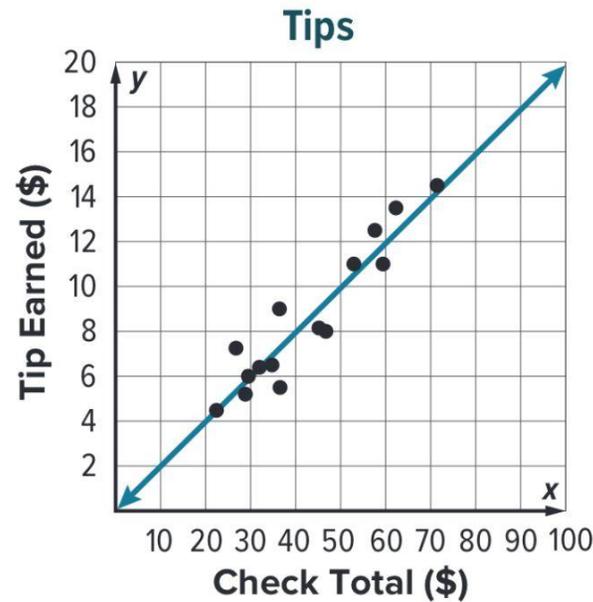
10. Find the equation for a line that closely fits the data and use it to predict values that are not present in the original data set.

Write an equation in slope-intercept form for the line of fit that is drawn. Then interpret the slope and y-intercept.

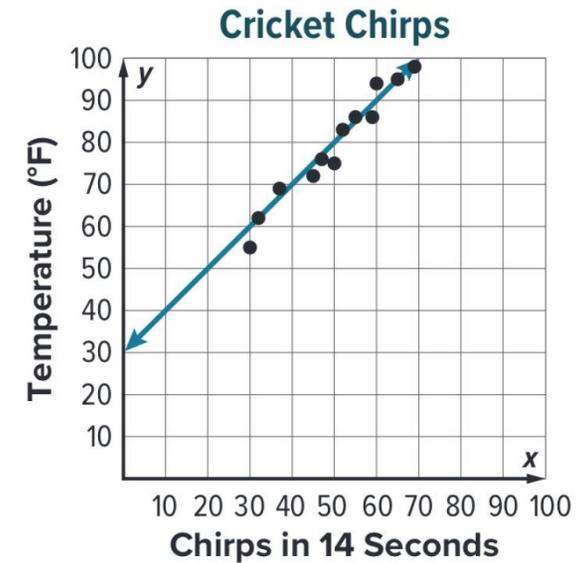
1.

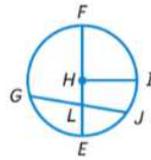


2.



3.





Math DEF.

EoT3 – Grade 8

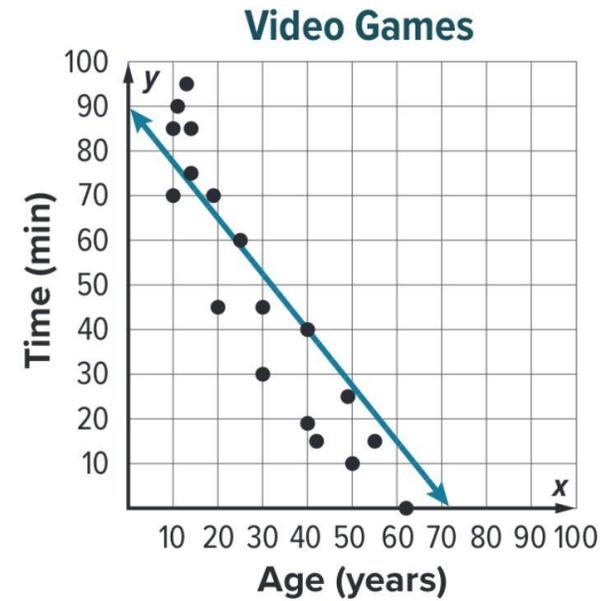
4. The scatter plot shows the results of a survey about age and daily time spent playing video games. Which equation best represent the line of fit ?

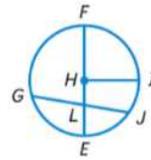
a.  $y = 0.8x + 90$

b.  $y = 1.25x + 90$

c.  $y = -0.8x + 90$

d.  $y = -1.25x + 90$



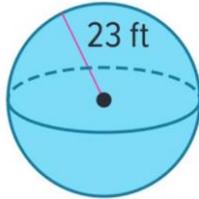


Math DEF.

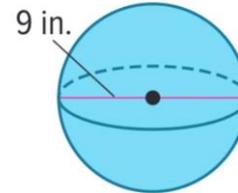
EoT3 – Grade 8

11. Use the formula for the volume of a sphere or hemisphere to find the volume of the figure given its radius or diameter.

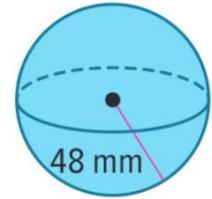
1.



2.



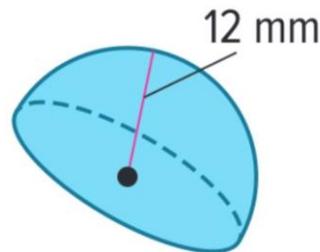
3.



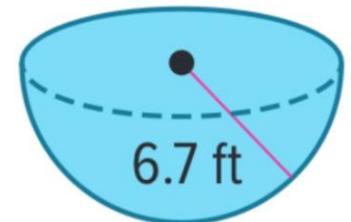
4. A necklace has a single spherical pearl with a radius of 2.1 mm. What is the volume of the pearl ?

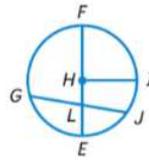
5. The radius of mini-basketball is 4 in. A pump can inflate the ball at a rate of 6 cubic inches per second. How long will it take to inflate the ball ?

6. Find the volume of the hemisphere.



7. Find the volume of the hemisphere.



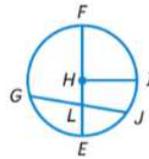


## Math DEF.

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1. The volume of a cylinder is 72 cubic feet and the radius is 6 feet . What is the height of the cylinder?
2. The volume of a cylinder is 5,070 cubic cm. The height of the cylinder is 30 cm. find the radius.
3. The volume of a cone is 196 cubic feet. Its radius is 7 feet, Find the height.
4. The volume of a cone is 735 cubic mm and the height is 5 mm. What is the radius .
5. Find the radius of a sphere with a volume of 26,266 cubic inches.
6. The volume of a sphere is 4,500 cubic yards. What is the radius of the sphere ?
7. The volume of a sphere is  $\frac{1372}{3}$  cubic inches. Find the diameter of the sphere, in inches.



Math DEF.

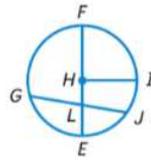
12. Construct and interpret a two-way table using relative frequencies.

1. Omar surveyed students at his school. He found that 23 students are in the Chess Club, and 8 of those students are in the Math Club. There are 19 students that are in the Math Club. Ten students are in neither club. Construct a two-way table summarizing the data.

	Math Club	No Math Club	Total
Chess Club			
No Chess Club			
Total			

2. The table shows the results of a survey that asked seventh and eighth grade students whether they buy or pack their lunch. Find the relative frequencies. Round to the nearest hundredth. Are seventh graders or eighth graders more likely to buy their lunch ?

	Buy Lunch	Pack a Lunch	Total
7th Graders	30	45	75
8th Graders	51	25	76
Total	81	70	151

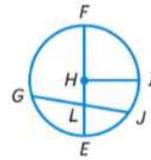


Math DEF.

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3. The table shows the results of a survey about the number of bus riders at McGuffey Junior High. Find the relative frequencies. Round to the nearest hundredth. Are male students or female students more likely to not ride the bus ?

	Male	Female	Total
Bus	110	84	194
No Bus	85	42	127
Total	195	126	321



Math DEF.

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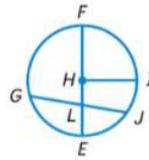
13. Construct and interpret a two-way table using relative frequencies.

1. The two-way table shows the number of seventh and eighth grade students that plan relative frequencies. Then determine if the data suggest an association between the categories. Explain your reasoning.

	Seventh	Eighth	Total
Attending	80; <input type="text"/>	138; <input type="text"/>	218; <input type="text"/>
Not Attending	105; <input type="text"/>	97; <input type="text"/>	202; <input type="text"/>
Total	185	235	420

2. The two-way table shows the results of a survey about two possible new are classes to be offered at the community center. Find the column relative frequencies. Then determine if the data suggest an association between the categories.

	Pottery	Photography	Total
Under 30	43; <input type="text"/>	86; <input type="text"/>	129
30 and Older	66; <input type="text"/>	55; <input type="text"/>	121
Total	109; <input type="text"/>	141; <input type="text"/>	250

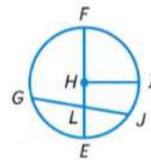


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Math DEF.

3. The two-way table shows the number of middle school and high school students that use social media. Based on the relative frequencies, which one of the following is not true?

	Social Media	No Social Media	Total
Middle School	410	815	1,225
High School	1,310	440	1,750
Total	1,720	1,255	2,975

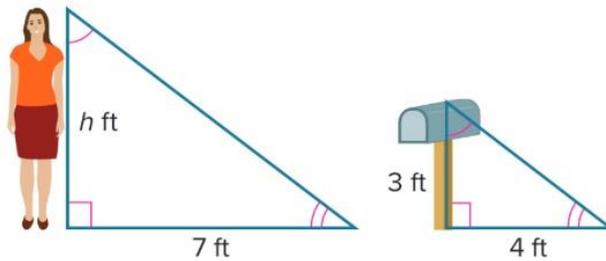


Math DEF.

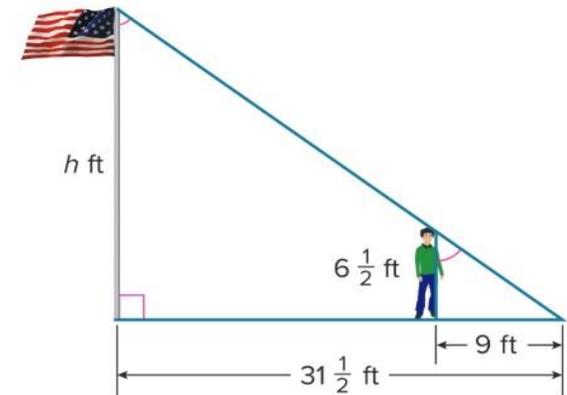
EoT3 – Grade 8

14. Use properties of similar triangles to solve indirect measurement problems.

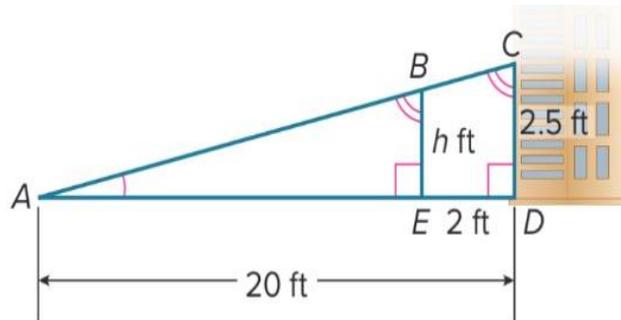
1. How tall is Becky (h) ?



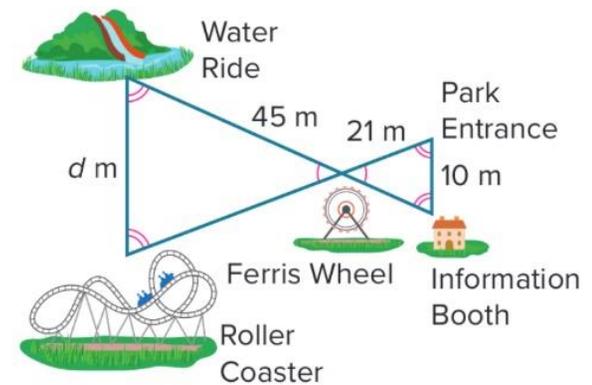
2. How tall is the flagpole?

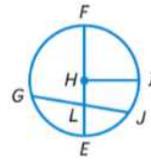


3. What is the height (h) ?



4. What is the distance (d) ?





Math DEF.

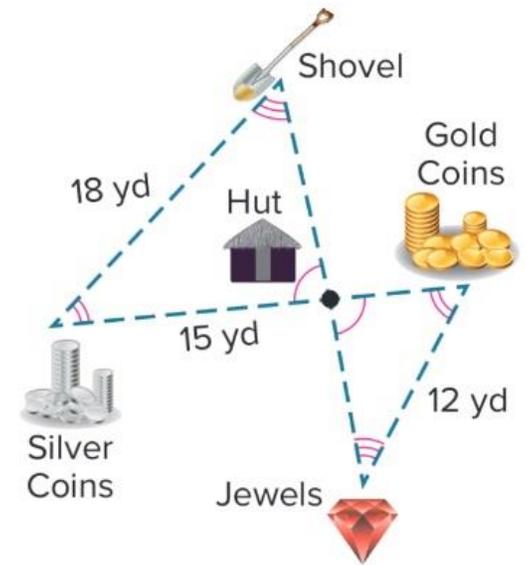
EoT3 – Grade 8

5.

If a 25-foot -tall casts a 75-foot shadow at the same time that a streetlight casts a 60 foot shadow, how tall is the streetlight?

6.

What is the distance from the silver coins to the gold coins?

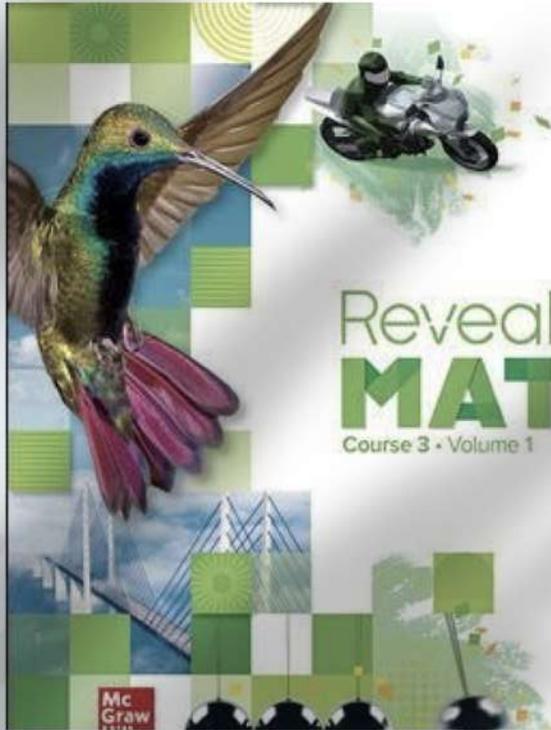




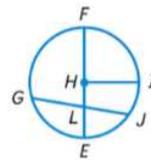
مؤسسة الإمارات  
للتعليم المدرسي  
EMIRATES SCHOOLS  
ESTABLISHMENT



# MATH DEF



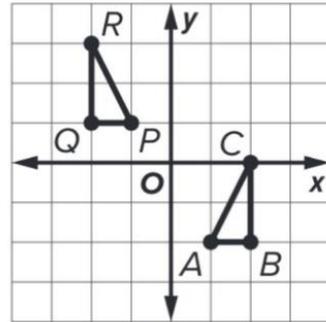
أسئلة إضافية مختارة  
من كتاب الطالب.



EoT3 – Grade 8

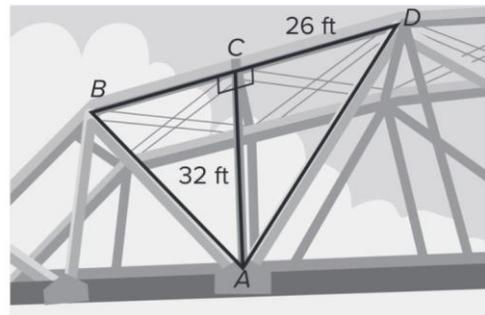
Math DEF.

**1. Multiple Choice** Triangle ABC is congruent to  $\triangle PQR$ . Which of the following sequence of transformations maps  $\triangle ABC$  onto  $\triangle PQR$  ?



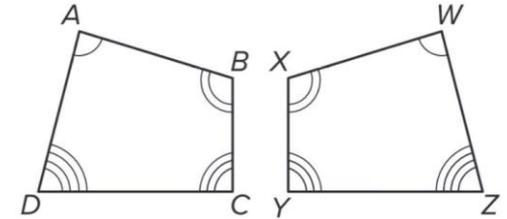
- a. Reflection across y-axis, translation 3 units up.
- b. Reflection across x-axis, translation 3 units up.
- c. Translation 2 units left, translation 3 units up.
- d. Rotation  $90^\circ$  clockwise about the origin, translation 3 units up.

**3. Multiple Choice** a diagram of a truss bridge is shown, in the diagram  $\triangle ABC \cong \triangle ADC$ . If  $AC=32$  feet and  $DC = 26$  feet, what is the length of AB?



- a. 18.7 feet
- b. 36.5 feet
- c. 38.4 feet
- d. 41.2 feet

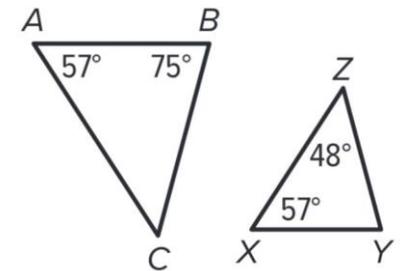
**2. Table item** consider quadrilateral ABCD and WXYZ as shown.

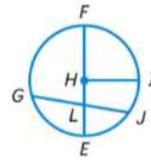


Statement.	Correct.	Incorrect.
$\overline{AB} \cong \overline{WX}$		
$\overline{BC} \cong \overline{WZ}$		
$\overline{AD} \cong \overline{XY}$		
$\angle B \cong \angle X$		
$\angle A \cong \angle W$		
$\angle C \cong \angle Z$		

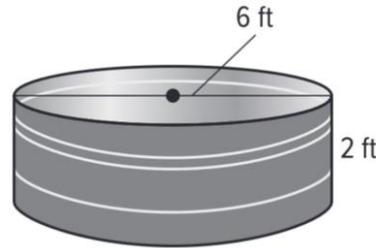
**4. Multiselect select** all the statements that accurately describe the triangles shown.

- a.  $m\angle 48^\circ$
- b.  $m\angle 75^\circ$
- c.  $m\angle C = m\angle X$
- d.  $\triangle ABC \sim \triangle XYZ$
- e.  $\triangle ABC \cong \triangle XYZ$



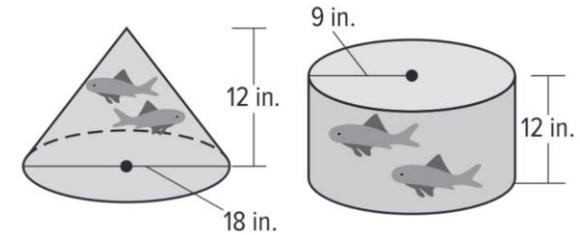


1. **Multiple Choice** a galvanized stock tank with the dimensions shows is filling with water at a rate of 25 gallons per minute. About how many minutes will it take to fill the stock tank if 1 cubic foot is about 7.5 gallons?



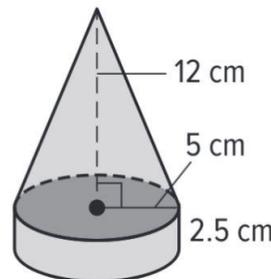
- a. 10 minutes.
- b. 17 minutes.
- c. 34 minutes.
- d. 68 minutes.

2. If 1 cubic inch of water weighs 0.6 ounce, about how many more ounces does the water in the cylindrical aquarium weigh ?



- a. 1,014 oz.
- b. 1,221.6 oz.
- c. 2,036 oz.
- d. 2,443 oz.

3. suppose the award is made from a high density polyethylene that has a density of 0.95 gram per cubic cm. What is the mass of the award ?



- a. 265 grams.
- b. 342 grams.
- c. 430 grams.
- d. 485 grams.

4. The volume of a cylinder with a radius of 8 feet is  $192\pi$ . What is the height of the cylinder in feet ?