Alshyiam School C2 & 3

Math Department

EOT Coverage Term 2

Gr-8 GEN

Done by:
Meera Alhassani

School Principle:
Mariam Alyahyei

هيكل امتحان نهاية الفصل الدراسي الثاني للعام 2023-2024 للصف الثامن / عام

EOT T2 Exam Coverage Grade 8 GEN 2023-2024

Academic Year العام الدراسي	2023/2024
Term الفصل	2
Subject المادة	Mathematics/Reveal الرياضيات/ريفيل
Grade الصف	8
Stream المسار	General العام
Number of MCQ عدد الأسئلة الموضوعية	15
Marks of MCQ درجة الأسئلة الموضوعية	4
Number of FRQ عدد الأسئلة المقالية	4
Marks per FRQ الدرجات للأسئلة المقالية	(8-12)
Type of All Questions نوع كافة الأسئلة	MCQ/ الأسئلة الموضوعية FRQ/ الأسئلة المقالية

	Question* السؤال*	Learning Outcome/Performance Criteria** ناتج التعلم/ معايير الأداء**	Reference(s) in the Student Book (English Version) المرجع في كتاب الطالب (النسخة الانجليزية)	
			Example/Exercise مثال/تمرين	Page الصفحة
الأسئلة الموضوعية - MCQ	1	Determine whether or not a relation is a function by identifying the number of outputs assigned to each input	1 to 5	261
	2	Generate function tables from function rules and use the sets of ordered pairs to graph the functions	1 to 8	271, 272
	3	Write linear functions from graphs, tables, and verbal descriptions by finding the rate of change and initial value	1 to 4	283
	4	Determine if a function, represented in different forms, is a linear or nonlinear function by using the rate of change, shape of the graph, or structure of the equation	1 to 7	303
	5	Recognize a qualitative graph and interpret the scenario it represents as well as create a qualitative graph	1 to 4	311
	6	Write equations in slope-intercept form to graph them and use the graphs to solve a system of equations	1 to 5	329
	7	Use the slope-intercept form of lines in order to determine whether a system of equations has zero, one, or infinitely many solutions	1 to 12	339, 340
	8	Use elimination to solve a system of linear equations	1 to 11	361

هيكل امتحان نهاية الفصل الدراسي الثاني للعام 2023-2024 للصف الثامن / عام

EOT T2 Exam Coverage Grade 8 GEN 2023-2024

Maximum Overall Grade الدرجة القصوى الممكنة	100
Exam Duration - مدة الامتحان	150 minutes
Mode of Implementation - طريقة التطبيق	SwiftAssess & Paper-Based
Calculator الآلة الحاسبة	Not Allowed غير مسموحة

	9	Write and solve a system of equations that models a real-world scenario	1 to 5	373
	10	Use the relationships between angles formed by two parallel lines cut by a transversal to find the measures of missing angles	1 to 8	391
	11	Use the relationships between angles formed by two parallel lines cut by a transversal to find the measures of missing angles.	1 to 8	391
	12	Find the measures of interior and exterior angles in a triangle by using relationships between these angles.	1 to 6	403
	13	Find the measures of the sides of a right triangle using the Pythagorean Theorem and square roots	1 to 6	415
	14	Find the distance between two points on a coordinate plane using the Pythagorean Theorem	1 to 6	427
	15	Translate figures on the coordinate plane and use coordinate notation to describe translations	1 to 6	443
FRQ - الأسئلة المقالية	16	Compare functions that are represented in different ways using their initial values and rates of change	1 to 8	291, 292
	17	Use substitution to solve a system of linear equations, including those that have zero or infinitely many solutions	1 to 11	349
	18	Determine if a triangle is a right triangle by using the converse of the Pythagorean Theorem	1 to 8	421
	19	Describe reflections of figures on the coordinate plane using coordinates and coordinate notation	1 to 6	453

هيكل امتحان نهاية الفصل الدراسي الثاني للعام 2023-2024 للصف الثامن / عام

EOT T2 Exam Coverage Grade 8 GEN 2023-2024

*	Questions might appear in a different order in the actual exam.
*	قد تظهر الأسئلة بترتيب مختلف في الامتحان الفعلي.
**	As it appears in the textbook, LMS, and (Main_IP).
**	كما وردت في كتاب الطالب وLMS والخطة الفصلية .

Alshyiam School C2 & 3

Math Department

Unit 5

Done by:
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School Principle:
Mariam Alyahyei

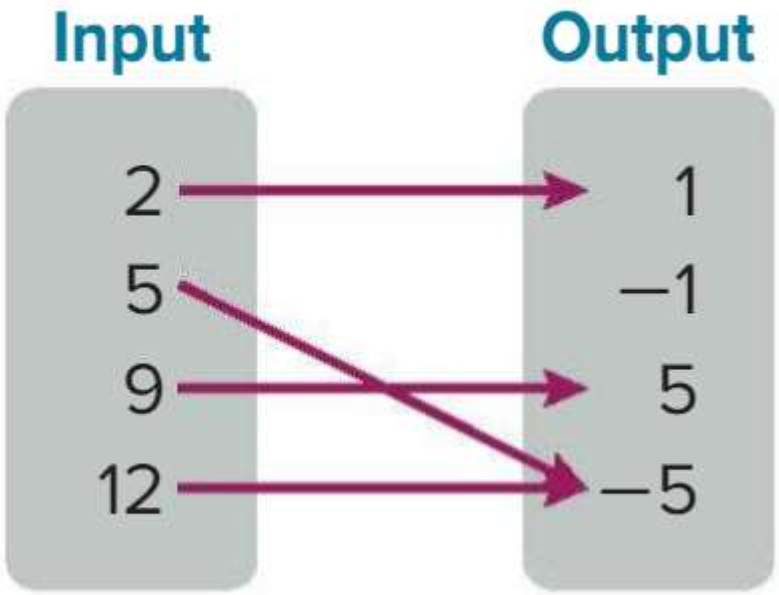
Practice..

PG.261

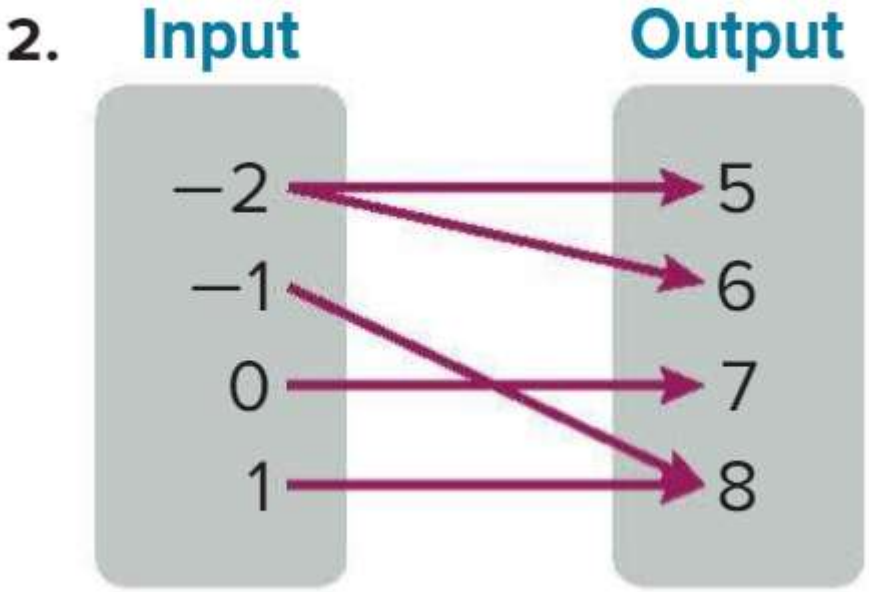
5.1

Determine whether each relation is a function. Explain.

1.



2.



Practice..

PG.261

5.1

Determine whether each relation is a function. Explain.

3.

Input, x	Output, y
−10	4
−5	4
0	4
5	4

4.

Input, x	Output, y
1	2
1	3
1	4
1	5

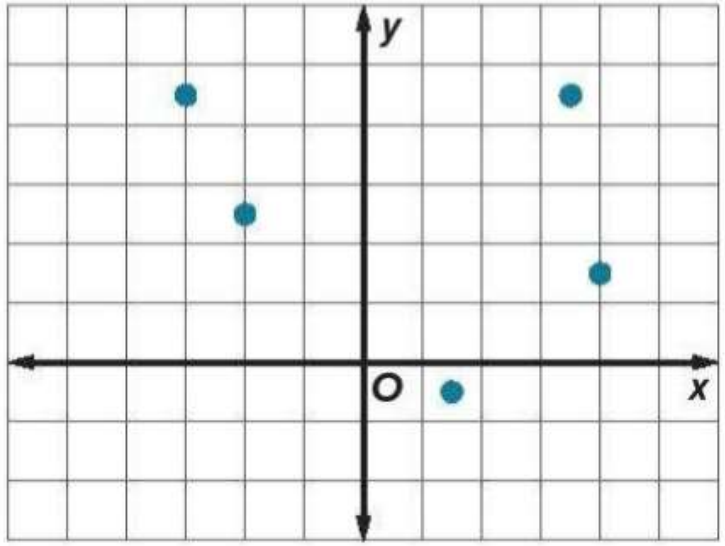
Practice..

PG.261

5.1

Determine whether each relation is a function. Explain.

5.



Practice..

PG.271-272

5.2

Complete the function table for each function given. (Example 1)

1. $y = 2.5x - 8$

Input, x	Output, y
−5	
0	
5	
10	

2. $y = -5x - 1$

Input, x	Output, y
−2	
−1	
0	
1	

3. $y = \frac{1}{2}x + 3$

Input, x	Output, y
−2	
2	
6	
10	

4. A single-engine plane can travel up to 140 miles per hour. The total number of miles m is represented by the function $m = 140h$, where h is the number of hours traveled. Determine appropriate input values for this situation. Then complete the function table for $m = 140h$. (Example 2)

Input, h	Output, m

Practice..

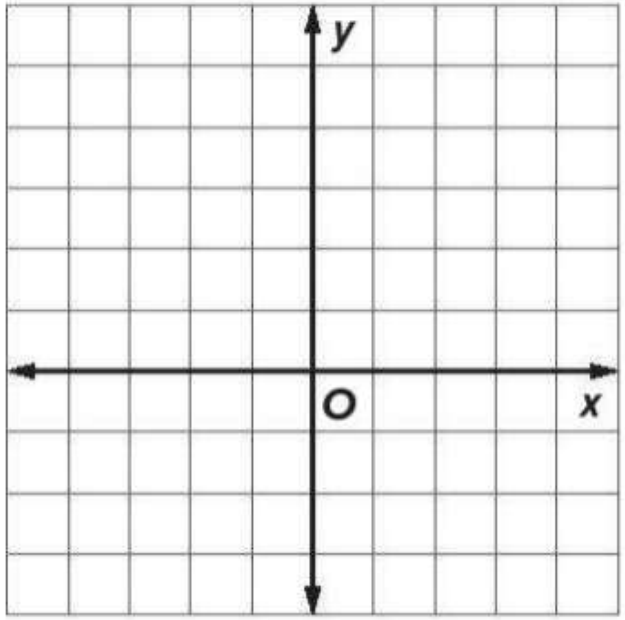
PG.271-272

5.2

5. Create a function table for the function $y = -2x + 1$. Then graph the function.

(Example 3)

Input, x	Output, y
-2	
-1	
0	
1	



6. **Multiselect** Select all of the possible types of numbers that are appropriate input values for the given situation.

A flower-delivery service charges $39.95 per flower arrangement and $2.99 for delivery. The total cost y is represented by the function $y = 39.95x + 2.99$, where x is the number of flower arrangements.

- ☐ whole numbers
- ☐ integers
- ☐ rational numbers
- ☐ positive integers
- ☐ negative numbers
- ☐ only zero

Practice..

5.2

PG.271-272

7. A baby giraffe is about $6\frac{1}{2}$ feet tall at birth and grows about $\frac{1}{2}$ foot per month for its first year. The function $h = \frac{1}{2}m + 6\frac{1}{2}$ represents the total height h, of a baby giraffe for any number of months m within its first year. How much taller is the giraffe at the end of month 11 than at the end of month 2?

8. A public swimming pool holds 250,000 gallons of water and is being drained at a rate of 200 gallons per minute. The function $g = -200m + 250{,}000$ represents how many gallons remain in the pool g, after any number of minutes m. How much more water remains after 5 minutes than after 20 minutes?

Practice..

PG.283

5.3

1. A cleaning service charges an initial fee plus an hourly rate. The total cost for different numbers of hours, including the initial fee, is shown on the graph. Find and interpret the rate of change and initial value. Then write the equation of the function in the form $y = mx + b$. (Example 1)

2. The table shows the distance Penelope is from the park as she walks to soccer practice. Assume the relationship between the two quantities is linear. Find and interpret the rate of change and initial value. Then write the equation of the function in the form $y = mx + b$. (Example 2)

Time (min), x	Distance (m), y
5	1,930
10	1,380
15	830
20	280

Practice..

PG.283

5.3

3. A roller skating rink charges a skate rental fee and an hourly rate to skate. The total cost to skate for 2 hours is $9.50 and for 5 hours is $18.50. Assume the relationship is linear. Find and interpret the rate of change and initial value. Then write the equation of the function in the form $y = mx + b$, where x represents the number of hours and y represents the total cost. (Example 3)

Test Practice

4. **Open Response** A movie theater offers a reward program that charges a yearly membership fee and a discounted rate per movie ticket. The total cost for a reward program member to see 5 movies is $40 and the total cost for 12 movies is $75. Assume the relationship is linear. Write the equation of the function in the form $y = mx + b$, where x represents the number of movies and y represents the total cost.

Practice..

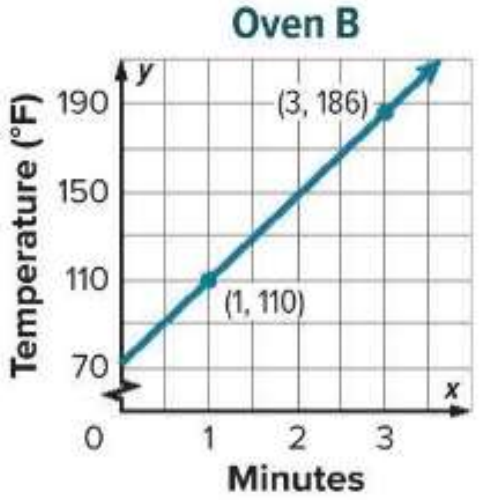
PG.291-229

5.4

1. Gennaro is considering two job offers as a part-time sales person. Company A will pay him $12.50 for each item he sells, plus a base salary of $500 at the end of the month. The amount Company B will pay him at the end of the month is shown in the table. Compare the functions' initial values and rates of change. Then determine how much more Gennaro would make at Company A if he sells 28 items by the end of the month. (Example 1)

Number of Items Sold, x	Total Earned ($), y
5	425
10	500
15	575

2. The temperature in two different ovens increased at a steady rate. The temperature in oven A is represented by the equation $y = 25x + 72$, where x represents the number of minutes and y represents the temperature in degrees Fahrenheit. The temperature of oven B is shown in the graph. Compare the functions' initial values and rates of change. Then determine how much greater the temperature in oven B will be than oven A after 8 minutes. (Example 1)



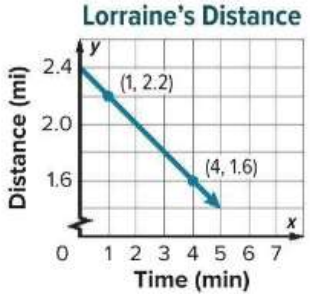
Practice..

PG.291-229

5.4

Test Practice

3. Open Response Lorraine and Chila were riding their bikes to school. Lorraine's distance away from the school is shown in the graph. Chila's distance away from the school is shown in the table. Compare the functions' initial values and rates of change. Then determine Lorraine's and Chila's distance from school after 7 minutes. (Example 2)

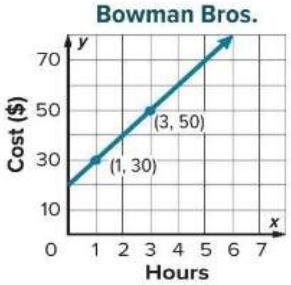


Chila's Distance	
Time (min), x	Distance (mi), y
1	1.5
2	1.3
3	1.1

4. Samuel is planning a walking tour of his city and is researching three different tour-guide companies. The cost y of each company is a linear function of the number of hours x that someone spends on the tour. The prices for three different companies are shown. Samuel plans his tour for 6 hours and wants to spend the lesser amount of money. From which company should he choose to do his walking tour?

Hidden Treasures
Walking Tour
$y = 9x + 25$

Road-Less-Traveled Tours	
Hours, x	Cost ($), y
1	12
2	24



Practice..

5.4 PG.291-229

5. **Identify Structure** Explain why the graph of the function $y = 7x + 3$ will never intersect with the graph of the function $y = 7x + 10$.

6. **Justify Conclusions** Tammy was comparing information for two cell phone plans. Plan A would cost $480 for one year. Plan B would cost $250 for 6 months. Tammy reasons that plan B must cost more for one year. Is there enough information to know if she is correct? Explain your reasoning.

Practice..

PG.291-229

5.4

7. Indicate whether the following statement is *always*, *sometimes*, or *never* true. Justify your reasoning.

When two functions have different rates of change, and different initial values, the function with the greater rate of change will have the greater output value for every input value.

8. Create Write a real-world problem in which you would need to compare initial values for three linear functions.

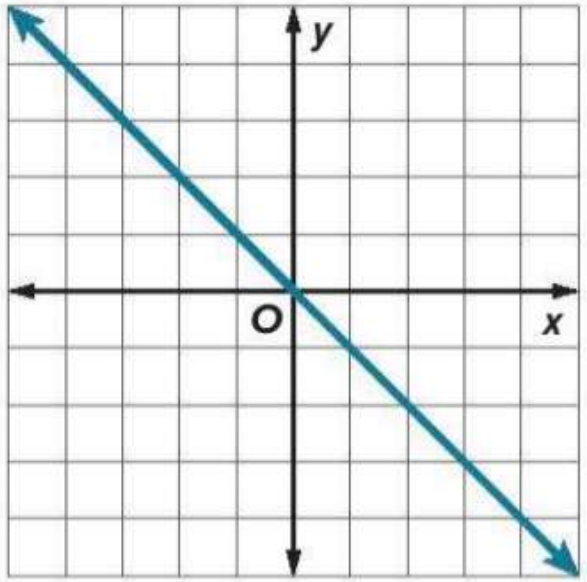
Practice..

PG.303

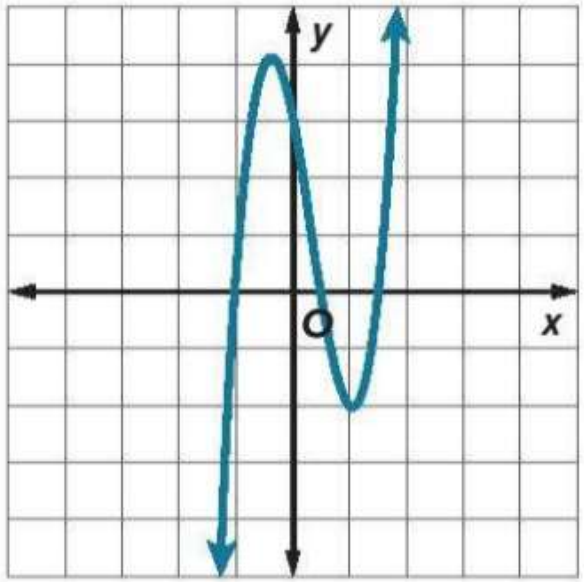
5.5

Determine whether each graph represents a linear or nonlinear function. Explain. (Example 1)

1.



2.

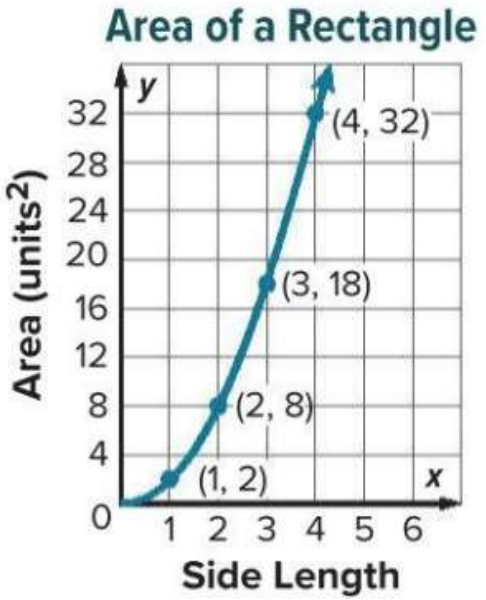


Practice..

5.5

PG.303

3. A rectangle has side lengths s and $2s$. Its area is represented by the expression $2s^2$. The area of the rectangle is a function of its side length. Does this situation represent a linear or nonlinear function? Explain. (Example 2)



Determine whether each table represents a linear or nonlinear function. Explain. (Example 3)

4.

Number of Items Sold, x	Total Earned ($), y
1	25
2	45
3	60

5.

Time (min), x	Distance (mi), y
15	2.2
30	4.4
45	6.6

Practice..

PG.303

5.5

Determine whether each equation represents a linear or nonlinear function. Explain. (Examples 4 and 5)

6. $y + 7x = 2$

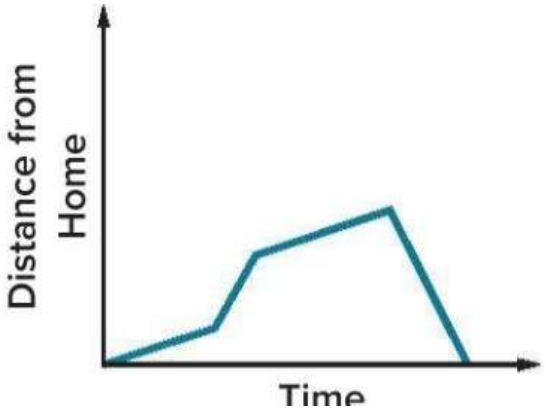
7. $y = \sqrt{8x}$

Practice..

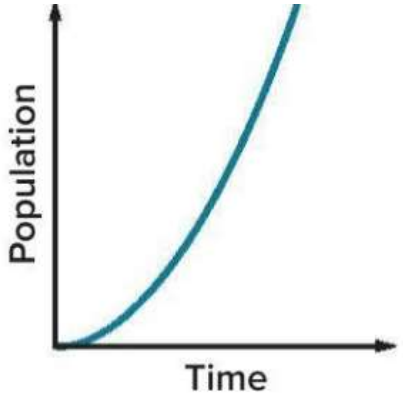
5.6

PG.311

1. The graph displays the distance Wesley was from home as he ran in preparation for his cross-country meet. Describe the change in distance over time. (Example 1)



2. The graph displays the population of bacteria in a petri dish. Describe the change in population over time. (Example 1)



Practice..

5.6

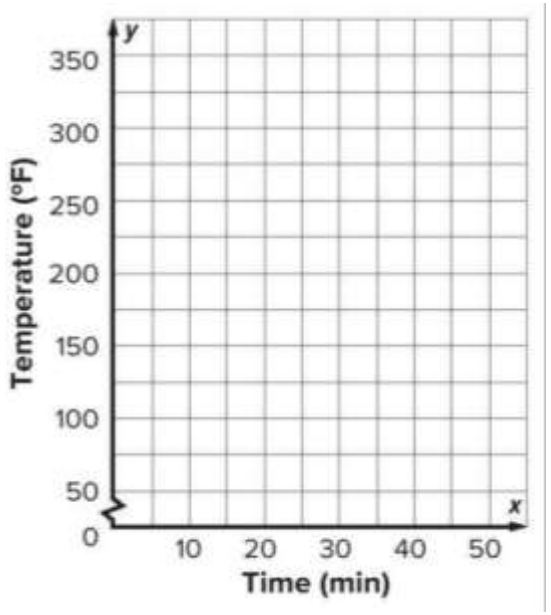
PG.311

3. Ryan's heart rate was steady before exercising. While exercising, his heart rate increased rapidly and then steadied. During cool down, his heart rate decreased slowly then lowered quickly until becoming steady again. Sketch a qualitative graph to represent the situation. Determine if the graph is linear or nonlinear and where the graph is increasing or decreasing.

(Example 2)

4. An oven is being preheated. The temperature starts at 75°F and increases at a constant rate for 8 minutes until it reaches the desired temperature, 350°F. It remains the same temperature for 27 minutes. Then the temperature decreases at a constant rate for 5 minutes until it reaches 175°, where it remains steady to keep the food warm. Sketch a graph to represent the situation.

(Example 3)



Alshyiam School C2 & 3

Math Department

Unit 6

Done by:
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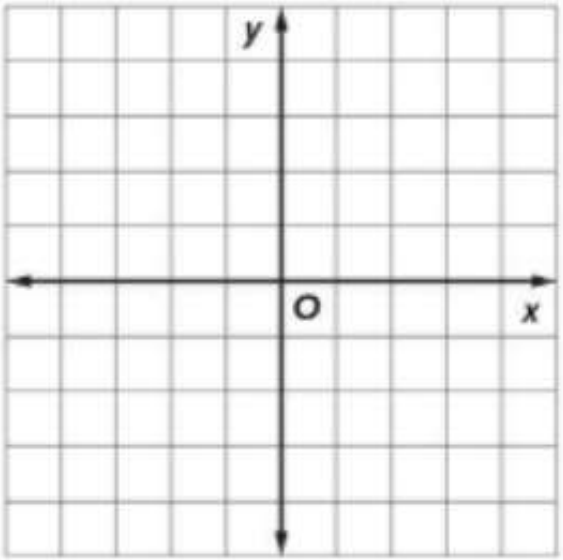
Practice..

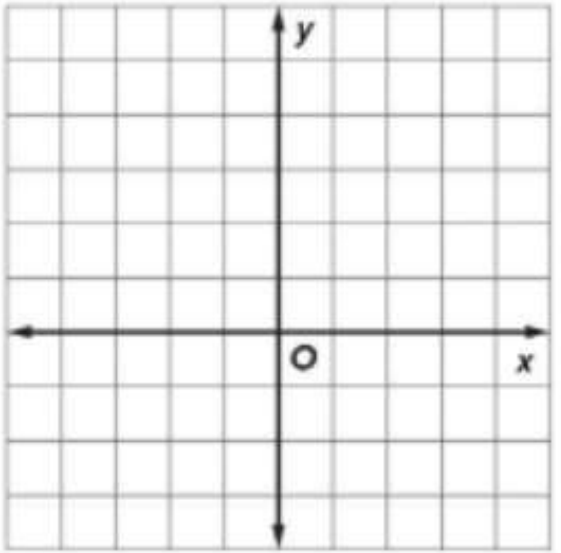
6.1 PG.329

Solve each system of equations by graphing. Check the solution. (Examples 1–4)

1. $y = x + 4$
$y = -2x - 2$



2. $y - \frac{1}{2}x = -1$
$y = \frac{1}{2}x + 4$



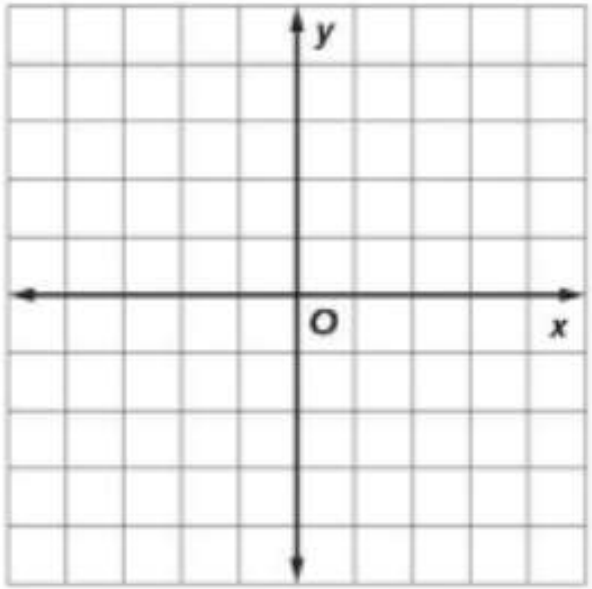
Practice..

6.1 PG.329

Solve each system of equations by graphing. Check the solution. (Examples 1–4)

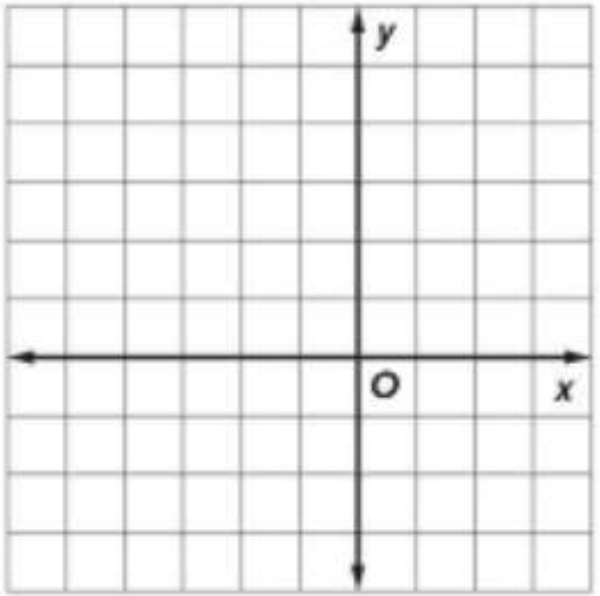
3. $y + \frac{1}{4}x = 1$

$y = -\frac{1}{4}x + 1$



4. $x = -3$

$y = 5$

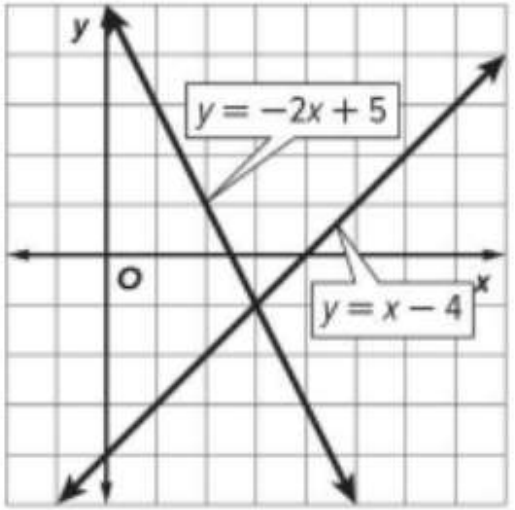


Practice..

6.1 PG.329

Test Practice

5. Grid The graph of a system of equations is shown. Plot and label the solution of the system on the graph.



Practice..

6.2 PG.339-340

Determine if each system of equations has *no solution, one solution*, or *an infinite number of solutions.* (Examples 1–3)

1. $-5x + y = -1$
$-5x + y = 10$

2. $y = -4x + 9$
$y = \frac{2}{3}x - 5$

3. $y + 1 = 3x$
$2y = 6x - 2$

4. $y = -\frac{4}{5}x$
$4x + 5y = 0$

5. $y = \frac{1}{2}x + 6$
$2y = x - 8$

6. $y = -2x$
$y = x + 3$

Practice..

6.2 PG.339-340

A system of equations consists of two lines. A line passes through each pair of points. Determine whether the line through the first pair of points intersects the line through the second pair of points. (Example 4)

7. (0, −5) and (2, −4);
(4, −3) and (6, −2)

8. (0, 4) and (1, 7);
(−1, −5) and (5, 13)

9. (0, 2) and (9, −1);
(12, 7) and (−6, −5)

Practice..

6.2 PG.339-340

Test Practice

10. Equation Editor Enter values for a and b, so that the system of equations has one solution.

$y = -6x - 4$

$y = ax + b$

$a =$

$b =$

11. Ethan and Camila are walking along linear routes in their town. On a map of their town, Ethan's route passes through the coordinates (0, −2) and (5, 18). Camila's route passes through the coordinates (−3, −12) and (0, 3). Do the friends pass through a common coordinate, walk along the same route, or never cross routes?

12. The Taylor family and the King family are each camping at a different national park. Let x represent the number of nights camping and y represent the total cost ($). The linear equation that represents the Taylor's total cost passes through the points (0, 15) and (5, 90). The linear equation that represents the King's total cost passes through the points (0, 0) and (7, 105). Determine if the national parks ever charge the same amount for a certain number of nights, always charge the same amount, or never charge the same amount for the same number of nights.

Practice..

6.3 PG.349

Solve each system of equations by substitution. Check the solution.

(Examples 1–5)

1. $y = x - 14$
$y = -6x$

2. $x - y = -5$
$x - y = \frac{1}{3}$

3. $y + 7 = 2x$
$2y = 4x - 14$

4. $y - 6x = 12$
$y = 6x + 5$

5. $y = 3x - 7$
$4x + y = -14$

6. $y = -6x + 8$
$2y + 12x = 16$

7. $-3x + 4y = 6$
$-x + 2y = 8$

8. $y + 11 = 2x$
$3y - 6x = -33$

9. $9x + y = 9$
$y + 9x = 5$

Practice..

6.3 PG.349

10. Solve the system of equations by substitution.

$$y = \frac{1}{4}x - 1$$

$$2y = \frac{2}{3}x + 6$$

Test Practice

11. Open Response What is the solution of the system of equations?

$y = 2x - 4$
$-21x + 3y = 3$

Practice..

6.4 PG.361

Solve each system of equations by elimination. Check the solution.

(Examples 1–4)

1. $-6x + y = -3$
$5x - 2y = -8$

2. $-3x + 12y = 18$
$-6x + 24y = 36$

3. $-5x - 2y = -12$
$3x + 2y = 8$

4. $5x + 5y = -10$
$2x - 3y = -9$

5. $x + 3y = 6$
$x - 3y = 12$

6. $6x + 4y = 6$
$6x + 2y = 12$

7. $3x - 5y = 11$
$x - 4y = -8$

8. $-18x + 6y = -6$
$-24x + 6y = -18$

9. $-4x - 8y = 8$
$3x - 5y = 16$

Practice..

6.4 PG.361

10. Solve the system of equations by elimination.

$$y = -\frac{1}{3}x - 5$$

$$\frac{1}{3}x + 5y = -9$$

Test Practice

11. Open Response What is the solution of the system of equations?

$$-2x + 4y = -10$$

$$2x + 2y = -8$$

Practice..

6.5

PG.373

Write and solve a system of equations that represents each situation. Interpret the solution. (Examples 1–4)

1. The sum of two numbers is 20.5. Their difference is 6.5. Find the two numbers.

2. Tadeo volunteered at the library 6 times as many hours over the weekend as Dylan. Together, they volunteered a total of 14 hours. How many hours did each person volunteer over the weekend?

Practice..

6.5

PG.373

Write and solve a system of equations that represents each situation. Interpret the solution. (Examples 1–4)

3. Tiana placed two orders for flowers and bushes. The first order was for 24 flowers and 6 bushes. The total of the first order was $144. The second order was for 18 flowers and 3 bushes. The total of the second order was $90. What is the cost of each plant?

4. Mrs. Adesso wants to take her class on a trip to either the science center or natural history museum. The science center charges $7 per student, plus $75 for a guided tour. The natural history museum charges $8 per student, plus $50 for a guided tour. For what number of students is the cost of the trip the same at each museum?

Test Practice

5. Open Response It costs $5 per hour to rent a snowboard from a certain ski rental company, plus a $50 deposit. Another ski rental company charges $10 per hour to rent a snowboard, plus a $25 deposit. For what number of hours is the cost to rent a snowboard the same at each company? What is the cost of renting a snowboard for this number of hours?

Hours, x:

Cost, y:

Alshyiam School C2 & 3

Math Department

Unit 7

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Practice..

7.1 PG.391

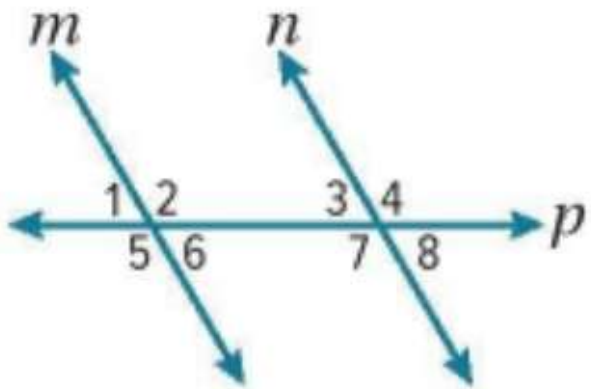
For Exercises 1–4, use the figure at the right. In the figure, line *m* is parallel to line *n*. For each pair of angles, classify the relationship in the figure as *alternate interior*, *alternate exterior*, or *corresponding*. (Examples 1 and 2)

1. ∠2 and ∠7

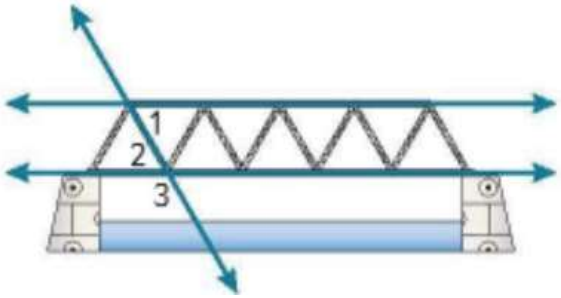
2. ∠1 and ∠3

3. ∠4 and ∠5

4. ∠5 and ∠7



5. Arturo is designing a bridge for science class using parallel supports for the top and bottom beam. Find $m\angle 2$ and $m\angle 3$ if $m\angle 1 = 60°$. Justify your answer. (Example 3)

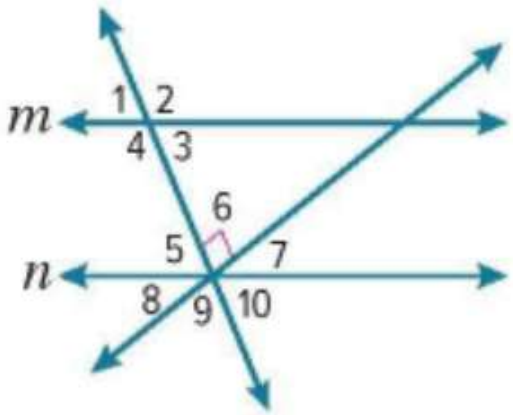


Practice..

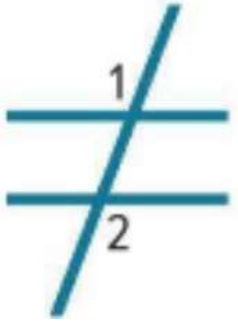
7.1

PG.391

6. In the figure, line m is parallel to line n. The measure of $\angle 3$ is 58°. What is the measure of $\angle 7$? (Example 4)

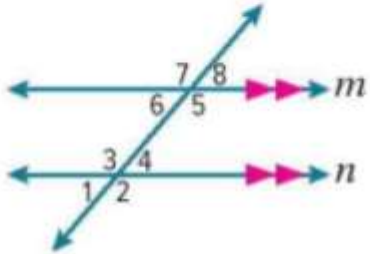


7. The symbol below is an equal sign with a slash through it. It is used to represent *not equal to* in math, as in $x \neq 5$. If $m\angle 1 = 108°$, classify the relationship between $\angle 1$ and $\angle 2$. Then find $m\angle 2$. Assume the equal sign consists of parallel lines.



Test Practice

8. Multiselect In the figure, line m and line n are parallel. Select all of the statements that are true.



- ☐ $\angle 1$ and $\angle 8$ are alternate exterior angles.
- ☐ $\angle 3$ and $\angle 7$ are corresponding angles.
- ☐ $\angle 2$ and $\angle 8$ are corresponding angles.
- ☐ $\angle 4$ and $\angle 6$ are alternate interior angles.
- ☐ $\angle 5$ and $\angle 7$ are corresponding angles.

Practice..

7.2 PG.403

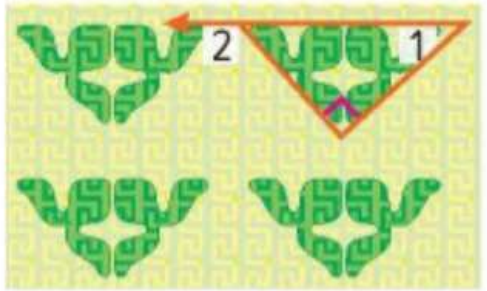
Find the value of *x* in each object. (Example 1)

1.

2.

3. In $\triangle FGH$, the measures of angles *F*, *G*, and *H*, respectively, are in the ratio 4:4:10. Find the measure of each angle. (Example 2)

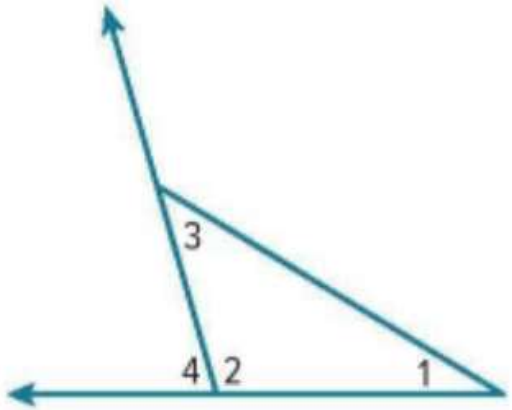
4. In the knitting pattern, $m\angle 1 = 42°$. Find the measure of $\angle 2$. (Example 3)



Practice..

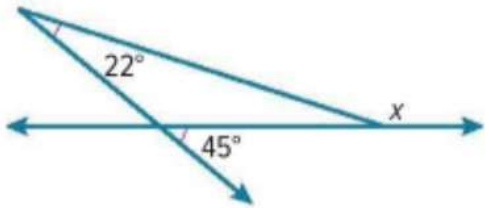
7.2 PG.403

5. In the figure, $m\angle 4 = 74°$ and $m\angle 3 = 43°$. Find the measures of $\angle 1$ and $\angle 2$. (Example 4)



Test Practice

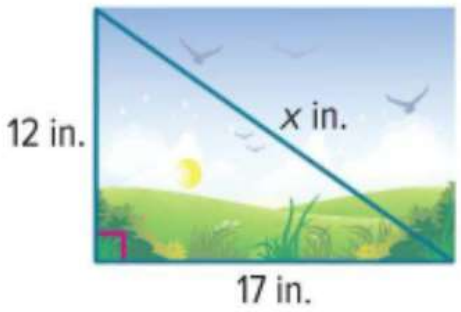
6. Open Response What is the measure of $\angle x$, in degrees, in the figure shown?



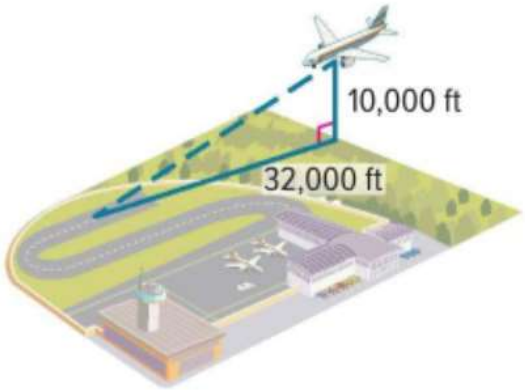
Practice..

7.3 PG.415

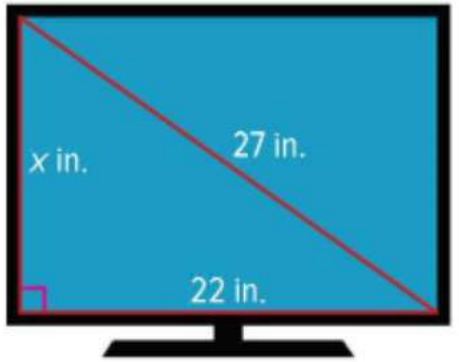
1. What is the length of a diagonal of a rectangular picture whose sides are 12 inches by 17 inches? Round to the nearest tenth. (Example 1)



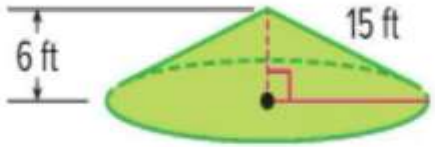
2. How far is the airplane from the runway? Round to the nearest tenth. (Example 2)



3. The diagonal of a television measures 27 inches. If the width is 22 inches, calculate its height to the nearest inch. (Example 3)



4. The distance from the top of the cone to the edge is 15 feet. The height of the cone is 6 feet. What is the radius of the cone? Round to the nearest tenth. (Example 4)



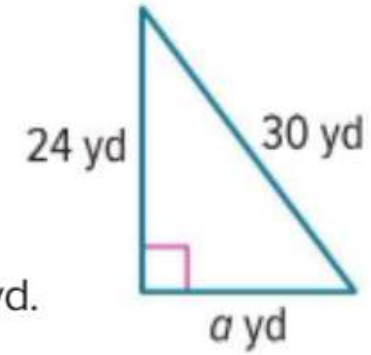
Practice..

7.3 PG.415

5. What is the perimeter of a right triangle if the hypotenuse is 15 centimeters and one of the legs is 9 centimeters?

Test Practice

6. Multiselect Select all of the following statements that are true about the right triangle shown.



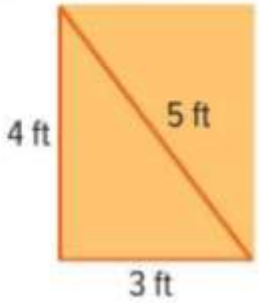
- ☐ The hypotenuse is 30 yd.
- ☐ The missing leg is 18 yd.
- ☐ The missing leg is 24 yd.
- ☐ The formula $24^2 + a^2 = 30^2$ can be used to find the missing leg measure.
- ☐ The formula $30^2 + a^2 = 24^2$ can be used to find the missing leg measure.

Practice..

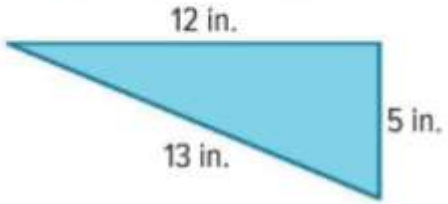
7.4 PG.421

1. Three cities form a triangle. Tom measures the distances between the three cities on a map. The distances between the three cities are 45 miles, 56 miles, and 72 miles. Is the triangle formed by the three cities a right triangle? (Examples 1 and 2)

2. A carpenter is measuring a cabinet to ensure the sides create a right angle. Determine whether the triangle is a right triangle. (Examples 1 and 2)



3. Allie wants to make sure that the pieces of cloth for a costume are right triangles. Determine whether the triangle is a right triangle. (Examples 1 and 2)



4. In order to ensure that the roof consists of right angles, an architect measures the diagonal to create a triangle. If the dimensions of the triangle are 9.5 feet, 16 feet, and 18.5 feet, is the triangle a right triangle? (Examples 1 and 2)

Practice..

5. Elyse is building a square raised-bed garden with 4-foot sides. She measured the diagonal to be $4\sqrt{2}$ feet. Is her garden square? Explain.

6. The distance between each base on a softball field is 60 feet. Maddie is placing the bases and measures the distance between home plate and second base. She determines the distance to be 80 feet. Are the bases at right angles? Explain.

7. Three islands form a triangle. Island A is $7\frac{1}{2}$ miles from Island B and 18 miles from Island C. Island B is $19\frac{1}{2}$ miles from Island C. Is the triangle formed a right triangle? Explain.

Test Practice

8. Multiselect Select all of the following that *cannot* be the measures of sides of a right triangle.

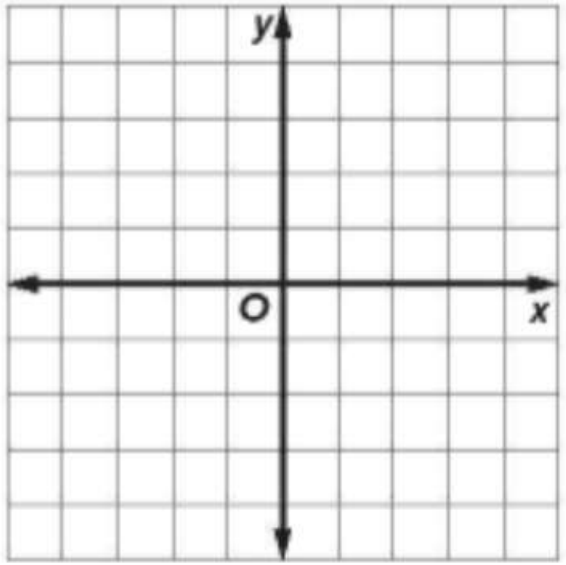
- ☐ 6 cm, 8 cm, 10 cm
- ☐ 14 cm, 18 cm, 20 cm
- ☐ 20 cm, 21 cm, 29 cm
- ☐ 6 cm, 6 cm, 6 cm
- ☐ 10 cm, 24 cm, 26 cm

Practice..

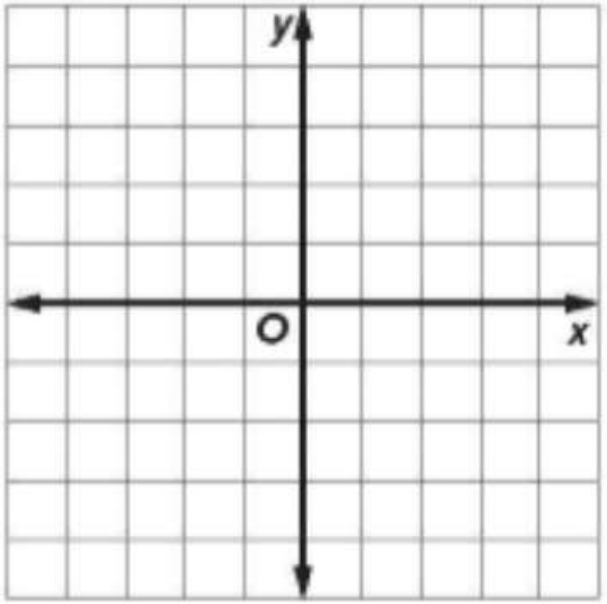
7.5 PG.427

Find the distance, c, between each pair of points on the coordinate plane. Round to the nearest tenth if necessary. (Example 1)

1. (−4, −3), (2, 1)



2. (0, 2), (5, −2)

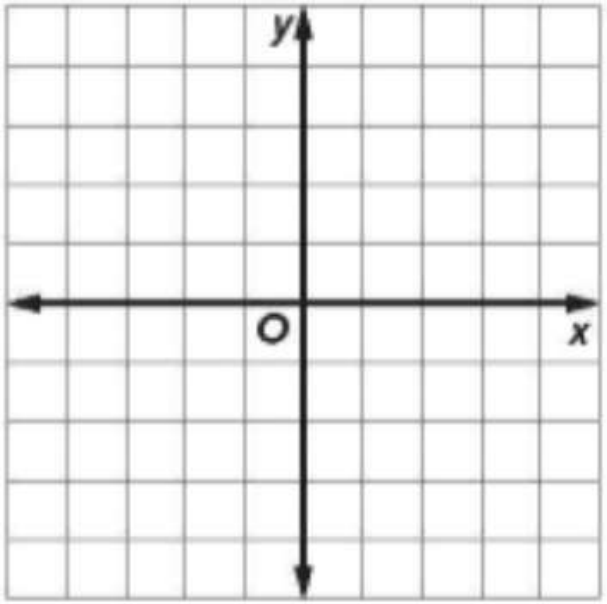


Practice..

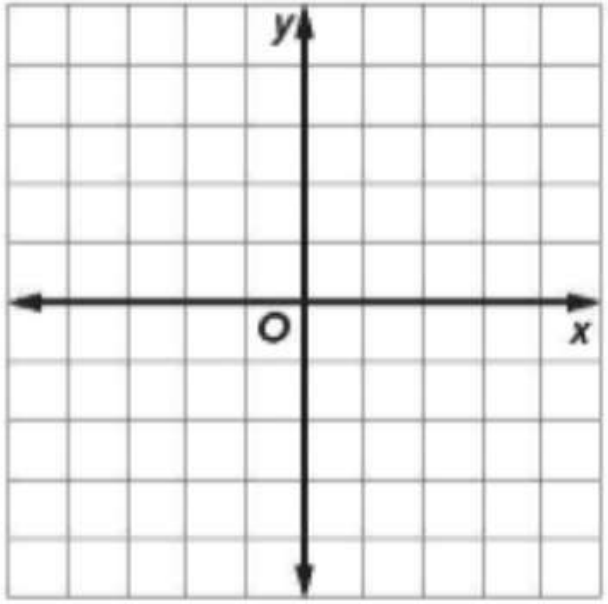
7.5 PG.427

Find the distance, c, between each pair of points on the coordinate plane. Round to the nearest tenth if necessary. (Example 1)

3. (0, 0), (−4, −3)



4. (−3, 4), (2, −3)



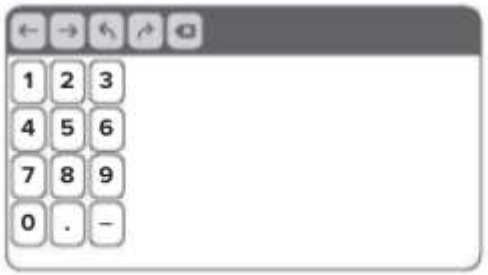
Practice..

7.5 PG.427

5. An archaeologist at a dig sets up a coordinate system using string. Two similar artifacts are found—one at position (1, 4) and the other at (5, 2). How far apart were the two artifacts? Round to the nearest tenth of a unit if necessary.

Test Practice

6. Equation Editor The coordinates of points A and B are $(-7, 5)$ and $(4, -3)$, respectively. What is the distance, in units, between the points? Round to the nearest tenth.



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Math Department

Unit 8

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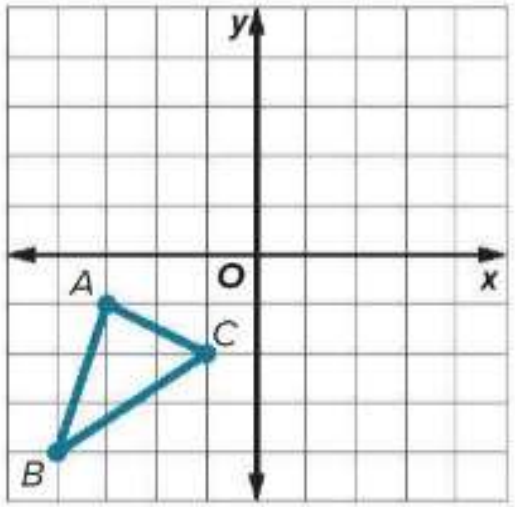
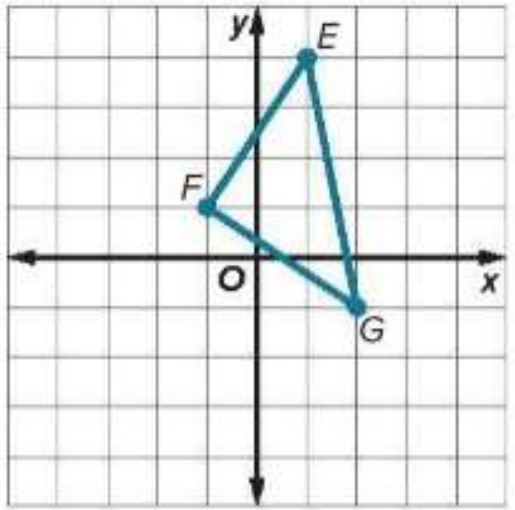
Practice..

8.1 PG.443

1. The graph of $\triangle ABC$ is shown. Graph the image of $\triangle ABC$ after a translation of 4 units right and 1 unit up. Write the coordinates of the image. (Example 1)



2. The graph of $\triangle EFG$ is shown. Graph the image of $\triangle EFG$ after a translation of 3 units left and 1 unit down. Write the coordinates of the image. (Example 1)



Practice..

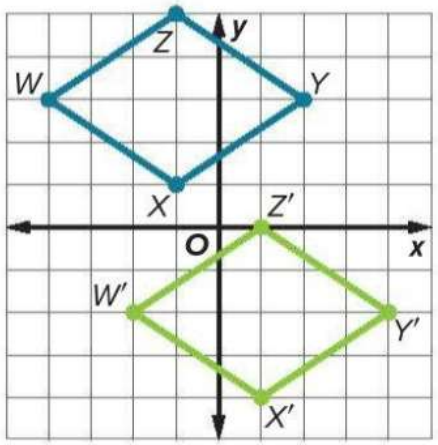
8.1 PG.443

Triangle *QRS* has vertices *Q*(−2, 2), *R*(−3, −4), and *S*(1, −2). Write the coordinate notation for each translation given. Then write the coordinates of △*Q'R'S'* after each translation. (Example 2)

3. 7 units right and 4 units down

4. 2 units left and 3 units up

5. The preimage and image of *WXYZ* are shown. Use coordinate notation to describe the translation. (Example 3)



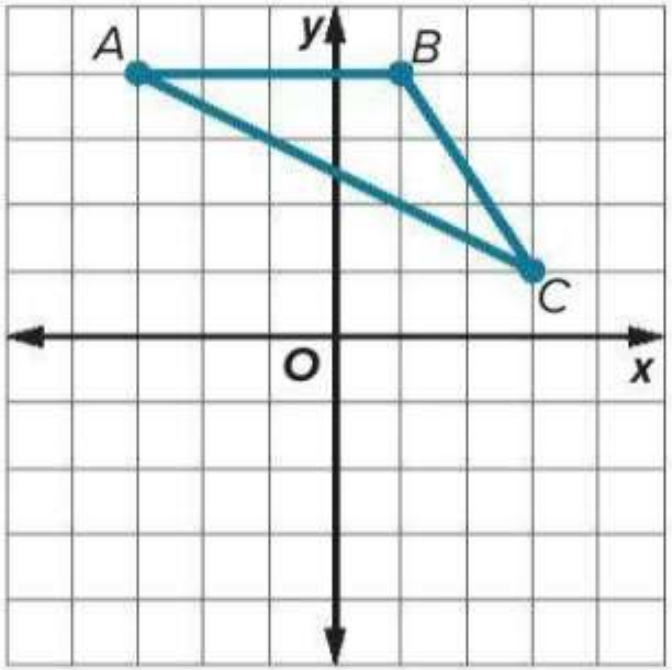
Test Practice

6. Open Response Triangle *JKL* has vertices *J*(−2, 2), *K*(−3, −4), and *L*(1, −2). Write the coordinate notation for a translation of 8 units right and 1 unit up.

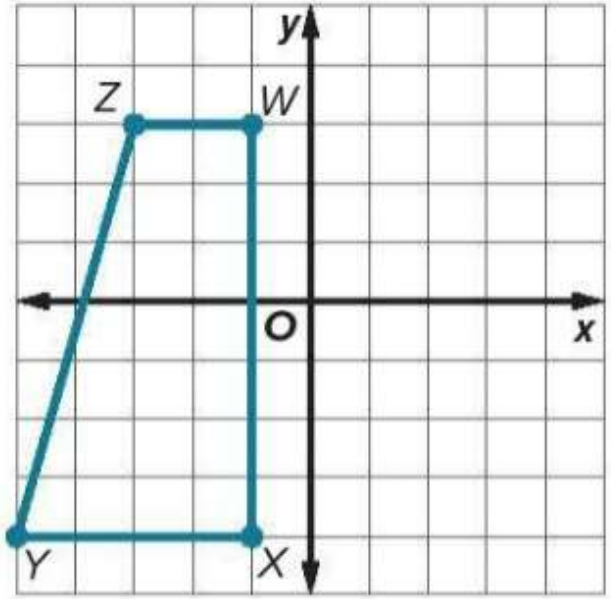
Practice..

8.2 PG.453

1. The graph of $\triangle ABC$ is shown. Graph the image of $\triangle ABC$ after a reflection across the x-axis. Write the coordinates of the reflected image. (Example 1)



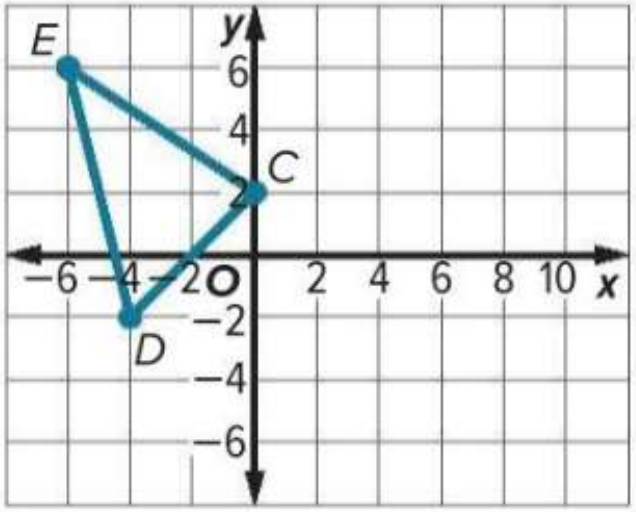
2. The graph of trapezoid $WXYZ$ is shown. Graph the image of $WXYZ$ after a reflection across the y-axis. Write the coordinates of the reflected image. (Example 1)



Practice..

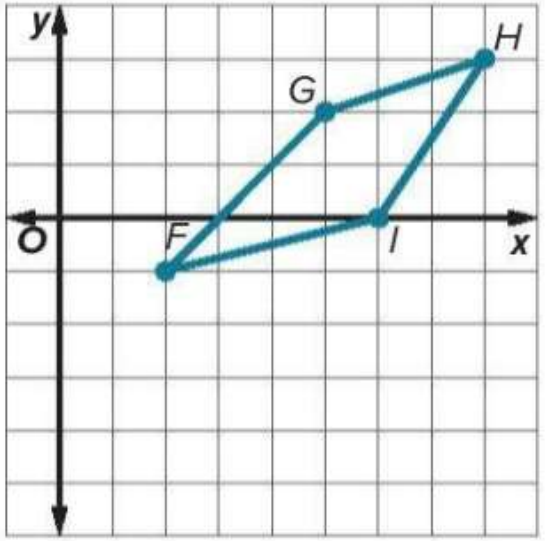
8.2 PG.453

3. The graph of $\triangle CDE$ is shown. Graph the image of $\triangle CDE$ after a reflection across the line $x = 2$. Include the line of reflection. Then write the coordinates of the image. (Example 2)



4. The graph of polygon *FGHI* is shown. Graph the image of *FGHI* after a reflection across the line $y = -1$. Include the line of reflection. Then write the coordinates of the image.

(Example 2)



Practice..

8.2 PG.453

5. Triangle TUV has coordinates $T(0, 3)$, $U(-3, 0)$, and $V(-4, 4)$. The triangle is reflected across the y-axis. Write the coordinate notation for a reflection across the y-axis. Then, write the coordinates of $\triangle T'U'V'$. (Example 3)

6. The coordinates of $\triangle LMN$ and its image are shown. Describe the transformation. (Example 4)

$$L(0, 0) \rightarrow L'(0, 0)$$

$$M(-4, 1) \rightarrow M'(-4, -1)$$

$$N(-1, 3) \rightarrow N'(-1, -3)$$

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Good Luck

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