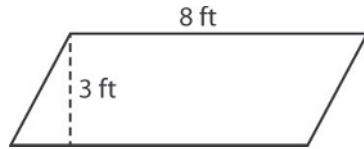


**MODULE**  
**13**

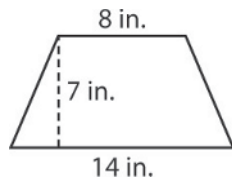
**Area and Polygons**

**Module Quiz: D**

1. What is the area of the parallelogram below? Use the formula  $A = bh$ .

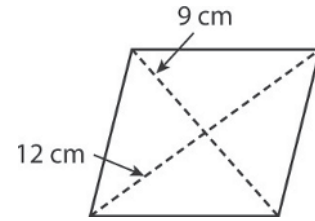


- A  $24 \text{ ft}^2$   
 B  $11.5 \text{ ft}^2$   
 C  $12 \text{ ft}^2$
2. What is the area of the trapezoid below?  
 Use the formula  $A = \frac{1}{2}(b_1 + b_2)h$ .

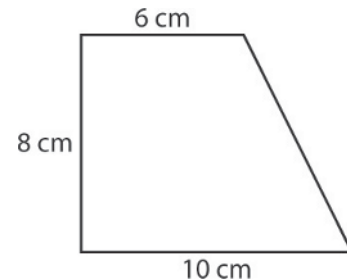


- A  $29 \text{ in}^2$   
 B  $77 \text{ in}^2$   
 C  $154 \text{ in}^2$
3. A right triangle has a height of 12 centimeters and a base of 4 centimeters. What is the area of the triangle?  
 A  $12 \text{ cm}^2$                       C  $48 \text{ cm}^2$   
 B  $24 \text{ cm}^2$
4. The point  $(-3, -2)$  is located in which quadrant of the coordinate plane?  
 A Quadrant III  
 B Quadrant IV  
 C Quadrant I

**Use the figure for 5 and 6.**



5. Which of the following equations could be used to find the area of the rhombus?  
 A  $A = \frac{1}{2}(9 + 12)$   
 B  $A = \frac{1}{2}(9)(12)$   
 C  $A = (9)(12)$
6. What is the area of the rhombus?  
 A  $54 \text{ cm}^2$   
 B  $21 \text{ cm}^2$   
 C  $108 \text{ cm}^2$
7. What is the area of the figure shown below?



- A  $48 \text{ cm}^2$   
 B  $64 \text{ cm}^2$   
 C  $80 \text{ cm}^2$
8. A triangle has a base of 15 inches and a height of 11 inches. What is the area of the triangle? Use the formula  $A = \frac{1}{2}bh$ .  
 A  $165 \text{ in}^2$   
 B  $160 \text{ in}^2$   
 C  $82.5 \text{ in}^2$

**MODULE**  
**13**

# Area and Polygons

9. Complete the table of values for the equation below.

$$y = x + 2$$

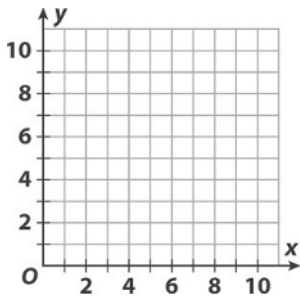
Name the ordered pairs in the table, and then graph the equation on the coordinate grid.

<b>x</b>	1	2	3	4	5
<b>y</b>	3				

Ordered pairs:

(1, 3), \_\_\_\_\_, \_\_\_\_\_,

\_\_\_\_\_, \_\_\_\_\_



10. A parallelogram has an area of 108 square inches. The base of the parallelogram is 18 inches. Explain how you could find the height of the parallelogram, then find the height. Show your work.

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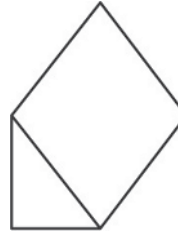
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11. Explain how you could find the area of the figure below.




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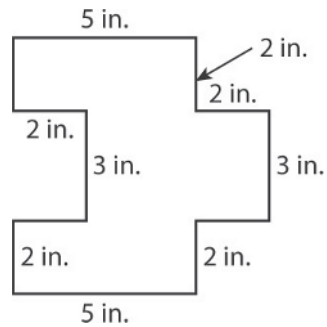
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12. What is the area of the figure shown below? Explain your reasoning.




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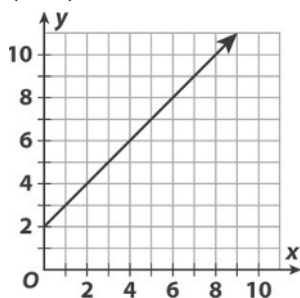
### Module Quiz 13: D

1. A
2. B
3. B
4. A
5. B
6. A
7. B
8. C

9.

<b>x</b>	1	2	3	4	5
<b>y</b>	3	4	5	6	7

Ordered pairs: (1, 3), (2, 4), (3, 5), (4, 6), (5, 7)



10. Divide the area by the length to find the height.  $108 \div 18 = 6$ . The height is 6 in.
11. You could find the area of the triangle and the area of the parallelogram, and then add to find the total area.
12. The area is  $5 \times 7 = 35 \text{ in}^2$ . The cutout piece on the left has an area of  $2 \times 3 = 6 \text{ in}^2$  as does the "bump" on the right.

### MODULE 14 Distance and Area in the Coordinate Plane

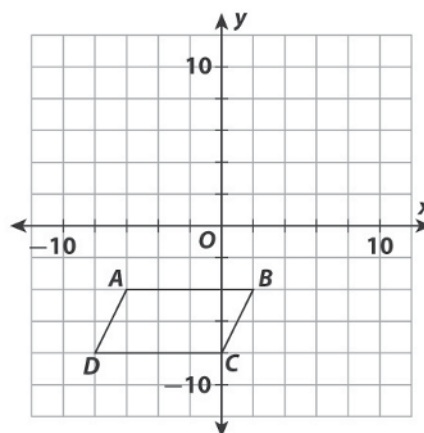
#### Module Quiz 14: B

1. C
2. A
3. C
4. A
5. C
6. D
7. B
8. D
9. C

10. B

11. The distance would be the same, 7 units. When a point is reflected across an axis, the new point is always the same distance from the axis as the original point.
12. (5, -7); A reflection across the x-axis changes the sign of the second value in the ordered pair, and a reflection across the y-axis changes the sign of the first value in the ordered pair.
13. There would be no difference; it would be the same point, (5, -7).
14. He should have added the two distances instead of subtracting them because they are on opposite sides of the y-axis. The actual distance is  $|-8| + |3| = 11$  units.
15. Sample answer: (-5, -3) to (5, -3). The point was reflected across the y-axis.
16.  $13 \times 12.5 = 162.5 \div 52 = 3.125$ ; It would take him 3.125 hours to drive that distance.

17.



Sample answer: Distance from A to B = 8 units. Distance from line AB to line DC = 4 units. Area of parallelogram =  $bh$ ;  $A = 8 \times 4 = 32$  square units

#### Module Quiz 14: D

1. C
2. A
3. B
4. C
5. C
6. A
7. B
8. C