

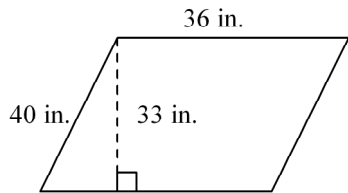
### Geometry Stations

#### Multiple Choice

Identify the choice that best completes the statement or answers the question.

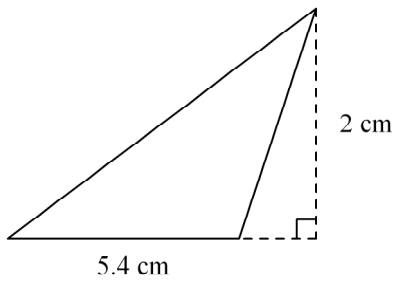
Find the area. The figure is not drawn to scale.

\_\_\_\_\_ 1.



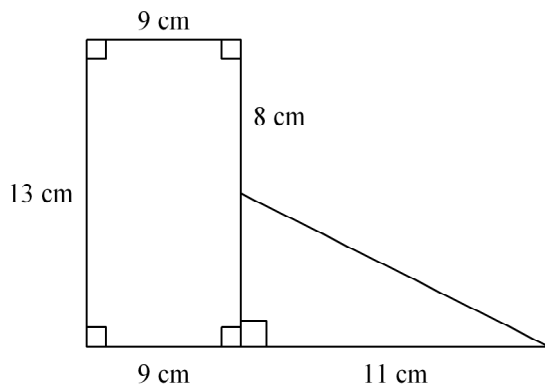
- a.  $1188 \text{ in.}^2$       b.  $69 \text{ in.}^2$       c.  $138 \text{ in.}^2$       d.  $1440 \text{ in.}^2$

\_\_\_\_\_ 2.



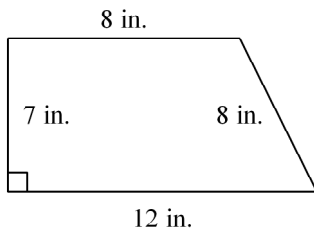
- a.  $10.8 \text{ cm}^2$       b.  $5.4 \text{ cm}^2$       c.  $21.6 \text{ cm}^2$       d.  $7.4 \text{ cm}^2$

\_\_\_\_\_ 3.



- a.  $144.5 \text{ cm}^2$       b.  $127 \text{ cm}^2$       c.  $172 \text{ cm}^2$       d.  $50 \text{ cm}^2$

\_\_\_\_\_ 4.



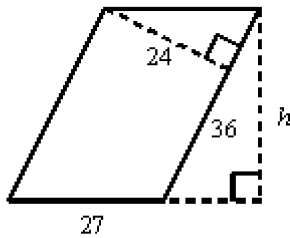
Not drawn to scale

- a.  $77.2 \text{ in.}^2$       b.  $80 \text{ in.}^2$       c.  $75 \text{ in.}^2$       d.  $70 \text{ in.}^2$

\_\_\_\_\_ 5. The area of a parallelogram is  $420 \text{ cm}^2$  and the height is 35 cm. Find the corresponding base.

- a. 385 cm      b. 455 cm      c.  $14,700 \text{ cm}^2$       d. 12 cm

\_\_\_\_\_ 6. Find the value of  $h$  in the parallelogram.

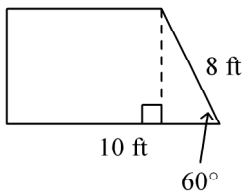


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- a. 32      b. 28      c. 40.5      d. 35

**Find the area of the trapezoid. Leave your answer in simplest radical form.**

\_\_\_\_\_ 7.



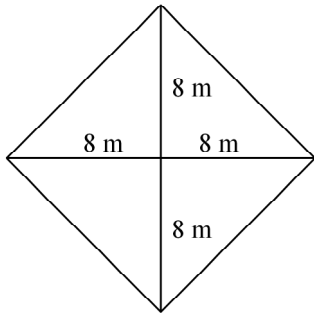
Not drawn to scale

- a.  $40\sqrt{3} \text{ ft}^2$       b.  $16\sqrt{3} \text{ ft}^2$       c.  $24\sqrt{3} \text{ ft}^2$       d.  $32\sqrt{3} \text{ ft}^2$

\_\_\_\_\_ 8. A kite has diagonals 9.2 ft and 8 ft. What is the area of the kite?

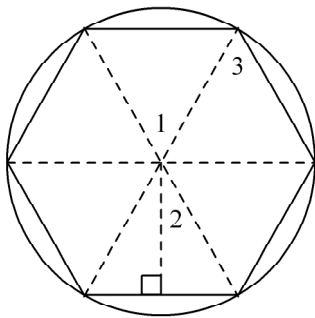
- a.  $36.8 \text{ ft}^2$       b.  $8.6 \text{ ft}^2$       c.  $73.6 \text{ ft}^2$       d.  $34.4 \text{ ft}^2$

\_\_\_ 9. Find the area of the rhombus.



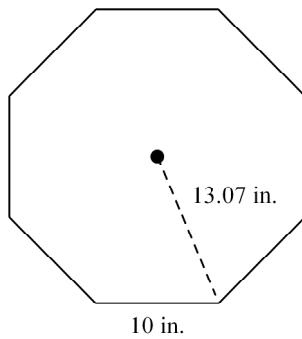
- a.  $12 \text{ m}^2$       b.  $4096 \text{ m}^2$       c.  $128 \text{ m}^2$       d.  $32 \text{ m}^2$

\_\_\_ 10. Given the regular hexagon, find the measure of each numbered angle.



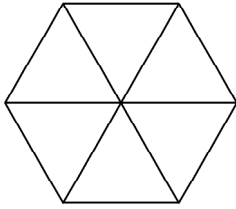
- a.  $m\angle 1 = 30, m\angle 2 = 60, m\angle 3 = 30$       c.  $m\angle 1 = 60, m\angle 2 = 30, m\angle 3 = 60$   
 b.  $m\angle 1 = m\angle 2 = m\angle 3 = 60$       d.  $m\angle 1 = 60, m\angle 2 = 30, m\angle 3 = 30$

\_\_\_ 11. Find the area of the regular polygon. Round your answer to the nearest tenth.



- a.  $176.6 \text{ in.}^2$       b.  $966.1 \text{ in.}^2$       c.  $80.0 \text{ in.}^2$       d.  $483.0 \text{ in.}^2$

- \_\_\_\_\_ 12. You are planning to use a ceramic tile design in your new bathroom. The tiles are blue and white equilateral triangles. You decide to arrange the blue tiles in a hexagonal shape as shown. If the side of each tile measures 7 centimeters, what will be the exact area of each hexagonal shape?

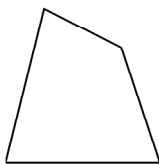


7 cm

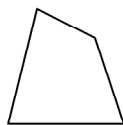
- a.  $73.5\sqrt{3} \text{ cm}^2$       b.  $98\sqrt{3} \text{ cm}^2$       c.  $21 \text{ cm}^2$       d.  $1029 \text{ cm}^2$
- \_\_\_\_\_ 13. A regular hexagon has a perimeter of 150 m. Find its area. Leave your answer in simplest radical form.
- a.  $5625\sqrt{3} \text{ m}^2$       b.  $\frac{1875}{2}\sqrt{3} \text{ m}^2$       c.  $\frac{25}{4}\sqrt{3} \text{ m}^2$       d.  $\frac{5625}{2}\sqrt{3} \text{ m}^2$

**The figures are similar. Give the ratio of the perimeters and the ratio of the areas of the first figure to the second. The figures are not drawn to scale.**

- \_\_\_\_\_ 14.



40 yd



15 yd

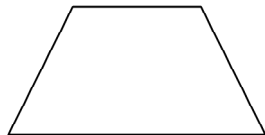
- a.  $\frac{8}{3}$  and  $\frac{10}{5}$       b.  $\frac{9}{4}$  and  $\frac{64}{9}$       c.  $\frac{9}{4}$  and  $\frac{10}{5}$       d.  $\frac{8}{3}$  and  $\frac{64}{9}$

**The figures are similar. The area of one figure is given. Find the area of the other figure to the nearest whole number.**

- \_\_\_\_\_ 15. The area of the smaller trapezoid is  $558 \text{ m}^2$ .



24 m



57 m

Not drawn to scale

- a.  $3147 \text{ m}^2$       b.  $3249 \text{ m}^2$       c.  $576 \text{ m}^2$       d.  $14 \text{ m}^2$
- \_\_\_\_\_ 16. It costs a family \$324 to buy a 10-ft-by-12-ft rug. At this rate, what will it cost them to buy a 15-ft-by-18-ft rug?
- a. \$729      b. \$270      c. \$388.80      d. \$466.56

Name: \_\_\_\_\_

ID: A

**Find the area of the regular polygon. Give the answer to the nearest tenth.**

- \_\_\_\_ 17. hexagon with side 8 yd  
a.  $332.6 \text{ yd}^2$       b.  $12 \text{ yd}^2$       c.  $41.6 \text{ yd}^2$       d.  $166.3 \text{ yd}^2$
- \_\_\_\_ 18. pentagon with radius 8 m  
a.  $304.3 \text{ m}^2$       b.  $152.2 \text{ m}^2$       c.  $30.4 \text{ m}^2$       d.  $154.2 \text{ m}^2$
- \_\_\_\_ 19. square with radius 16 ft  
a.  $520 \text{ ft}^2$       b.  $512 \text{ ft}^2$       c.  $256 \text{ ft}^2$       d.  $1024 \text{ ft}^2$

**Geometry Stations  
Answer Section****MULTIPLE CHOICE**

1. ANS: A	PTS: 1	DIF: L2	TOP: 10-1 Example 1
2. ANS: B	PTS: 1	DIF: L2	TOP: 10-1 Example 3
3. ANS: A	PTS: 1	DIF: L3	TOP: 10-1 Example 3
4. ANS: D	PTS: 1	DIF: L2	TOP: 10-2 Example 1
5. ANS: D	PTS: 1	DIF: L3	TOP: 10-1 Example 1
6. ANS: A	PTS: 1	DIF: L2	TOP: 10-1 Example 2
7. ANS: D	PTS: 1	DIF: L2	TOP: 10-2 Example 2
8. ANS: A	PTS: 1	DIF: L2	TOP: 10-2 Example 3
9. ANS: C	PTS: 1	DIF: L2	TOP: 10-2 Example 4
10. ANS: C	PTS: 1	DIF: L2	TOP: 10-3 Example 1
11. ANS: D	PTS: 1	DIF: L2	TOP: 10-3 Example 3
12. ANS: A	PTS: 1	DIF: L2	TOP: 10-3 Example 3
13. ANS: B	PTS: 1	DIF: L3	TOP: 10-3 Example 4
14. ANS: D	PTS: 1	DIF: L2	TOP: 10-4 Example 1
15. ANS: A	PTS: 1	DIF: L2	TOP: 10-4 Example 2
16. ANS: A	PTS: 1	DIF: L2	TOP: 10-4 Example 3
17. ANS: D	PTS: 1	DIF: L2	TOP: 10-5 Example 1
18. ANS: B	PTS: 1	DIF: L2	
19. ANS: B	PTS: 1	DIF: L2	