Enhanced End of Topic Assessment

Name _____ Date _____

Part A: Multiple-Choice Questions

1. Which set of measures **CANNOT** be angle measures of a triangle?

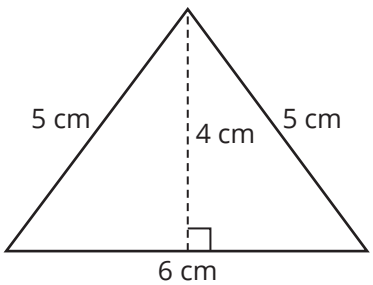
a. 55°, 55°, 71°

b. 2°, 2°, 176°

c. 11.9°, 19.1°, 149°

d. 58°, 63°, 59°

2. Ms. Chung will paint a triangular tile. An image of the tile is shown.



Which equation can be used to calculate the area of the triangular tile?

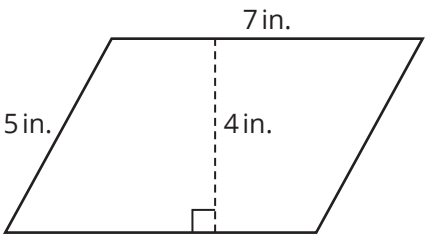
a. $A = (6 \text{ cm})(4 \text{ cm})$

b. $A = (6 \text{ cm})(5 \text{ cm})$

c. $A = \frac{1}{2}(6 \text{ cm})(4 \text{ cm})$

d. $A = \frac{1}{2}(6 \text{ cm})(5 \text{ cm})$

3. The dimensions of the parallelogram shown are given in inches. What is the area of the parallelogram in square inches?



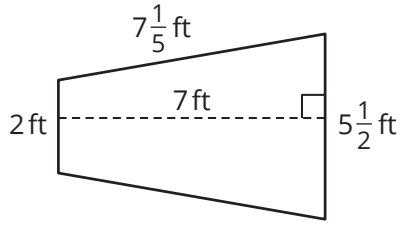
a. 28 $in.^2$

b. 35 $in.^2$

c. 24 $in.^2$

d. 20 $in.^2$

4. The planning committee submitted a plan to the town architect to revitalize the town square. Their plan includes a new flagpole with a concrete base in the shape of an isosceles trapezoid. The base of the trapezoid and its dimensions are shown.



What is the area of the concrete base proposed by the planning committee in square feet?

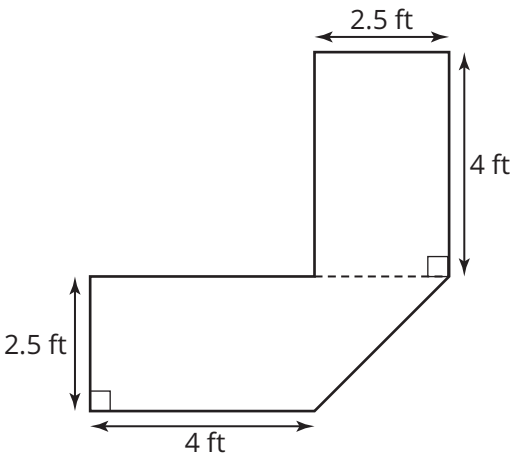
a. $14\frac{1}{2}$ ft^2

b. $26\frac{1}{4}$ ft^2

c. $26\frac{1}{2}$ ft^2

d. $26\frac{3}{4}$ ft^2

5. A design for a desk is composed of a trapezoid and a rectangle. Some dimensions of the desk design are shown.



What is the area of the desk in square feet?

a. 36.25 ft^2

b. 26.25 ft^2

c. 23.125 ft^2

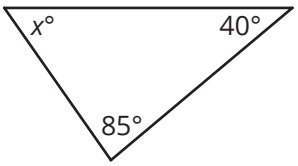
d. 20 ft^2

Part B: Open-Response Questions

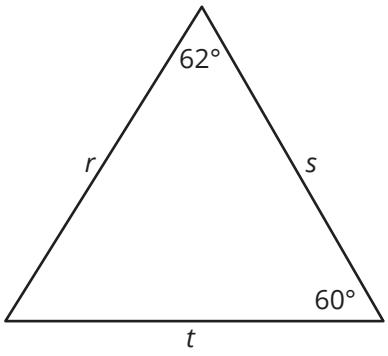
6. Determine whether it is possible to form one unique triangle, many different triangles, or no triangles using the set of segments with the given measurements. Explain your reasoning.

11 in., 8 in., 16 in.

7. What is the value of x?

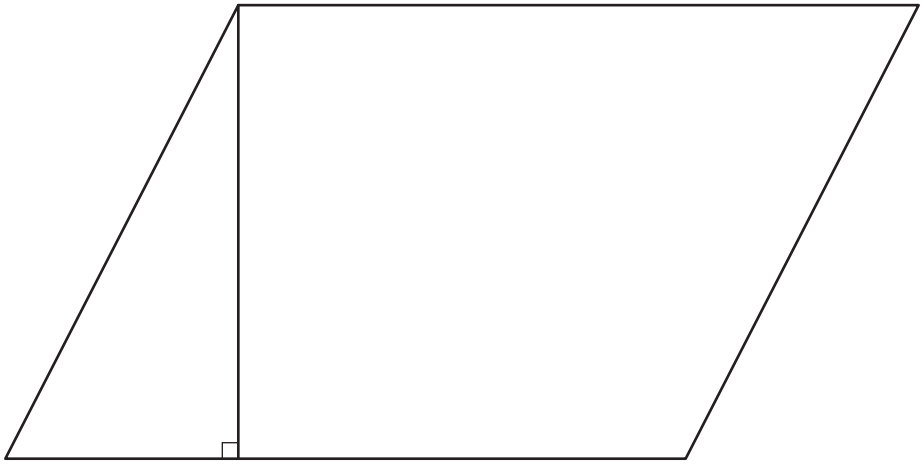


8. List the side lengths in order from shortest to longest.

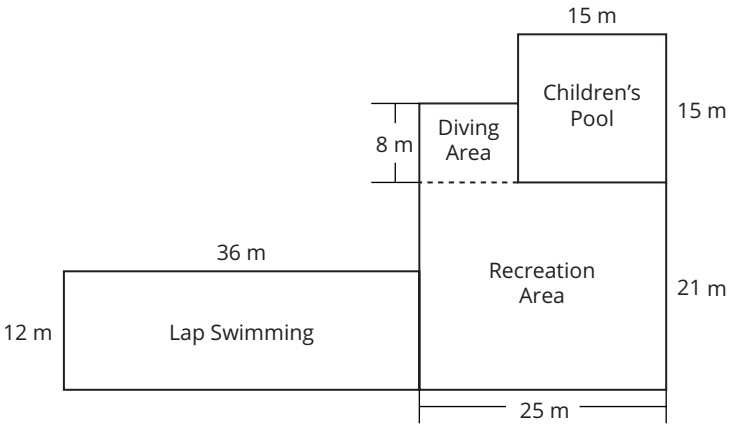


9. The area of a triangle is 27 square meters, and the height of the triangle is 9 meters. What is the base of the triangle in meters?

10. Use a ruler to measure the dimensions of the given parallelogram to the nearest centimeter. What is the area of the parallelogram in square centimeters?

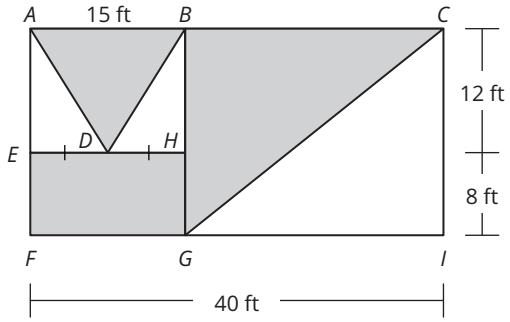


11. A diagram of a community swimming pool is shown.



The community would like a cover for the Children's Pool and Diving Area. How many square meters of covering will be needed?

12. The figure shown is composed of rectangles and triangles.



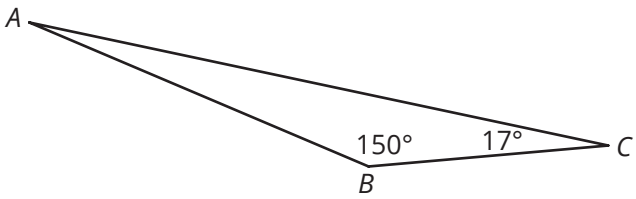
a. Calculate the area of the shaded region.

b. Determine the difference between the area of the shaded region and the area of the non-shaded region in square feet.

Part C: Griddable Response Questions

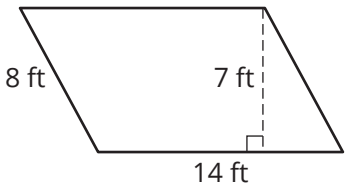
Record your answers and fill in the bubbles. Be sure to use the correct place value.

13. In triangle *ABC* shown below, what is the measure of $\angle A$ in degrees?



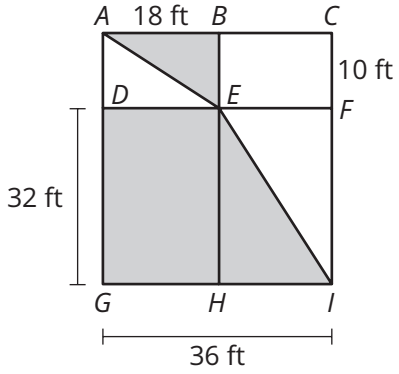
					•		
+	0	0	0	0		0	0
−	1	1	1	1		1	1
	2	2	2	2		2	2
	3	3	3	3		3	3
	4	4	4	4		4	4
	5	5	5	5		5	5
	6	6	6	6		6	6
	7	7	7	7		7	7
	8	8	8	8		8	8
	9	9	9	9		9	9

14. Eileen paints a company's logo on the side of its truck. The logo is in the shape of a parallelogram with the dimensions shown. What is the area that Eileen paints in square feet?



					•		
+	0	0	0	0		0	0
−	1	1	1	1		1	1
	2	2	2	2		2	2
	3	3	3	3		3	3
	4	4	4	4		4	4
	5	5	5	5		5	5
	6	6	6	6		6	6
	7	7	7	7		7	7
	8	8	8	8		8	8
	9	9	9	9		9	9

15. Calculate the area of the shaded region.



					.		
+	0	0	0	0		0	0
−	1	1	1	1		1	1
	2	2	2	2		2	2
	3	3	3	3		3	3
	4	4	4	4		4	4
	5	5	5	5		5	5
	6	6	6	6		6	6
	7	7	7	7		7	7
	8	8	8	8		8	8
	9	9	9	9		9	9