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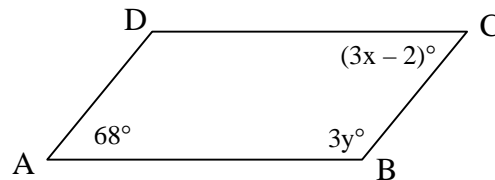
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**Technical Math Mod C → Geometry**  
**Lesson 6 – Study Guide – Polygons**

- 1) True or False? All polygons are concave.
- 2) How many sides does a regular octagon have?
- 3) Which of the following is defined to be a quadrilateral with four right angles?  
A. convex polygon      B. rectangle      C. parallelogram      D. concave polygon
- 4) What is the sum of the interior angle measures of a 16-sided polygon?

- 5) What is the value of  $x$  in the parallelogram below? If necessary, round your answer to two decimal places.



- 6) If the sum of interior angle measures of a polygon is  $1260^\circ$ , how many sides does the polygon have?
- 7) If a regular polygon has exterior angles that measure  $72^\circ$  each, how many sides does the polygon have?

8) True or False? If exactly one pair of opposite sides of a quadrilateral is parallel, then the quadrilateral is a trapezoid.

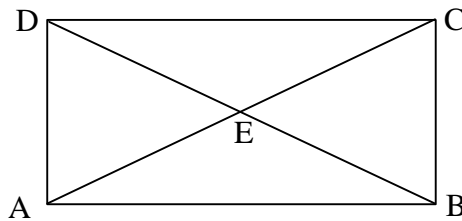
9) What are the angle pairs formed by a base and legs of a trapezoid called?

- A. isosceles angles    B. side angles    C. base angles

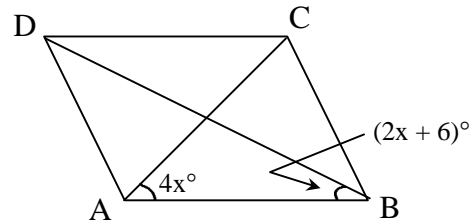
10) A square is a special case of which of the following polygons? Circle all that apply.

- A rectangle                      B parallelogram                      C rhombus  
 D trapezoid                      E pentagon                      F none of the above

11) In the rectangle below,  $\overline{AC}$  has a length of 38. What is the length of  $\overline{ED}$ ? If necessary, round your answer to two decimal places.



12) What is the value of x in the rhombus below? Round your answer to two decimal places.

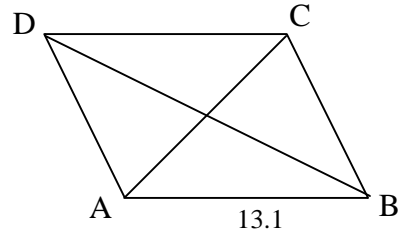


13) If a rectangle has an area of 88 square units and a length of 4 units, what is its width? If necessary, round your answer to two decimal places.

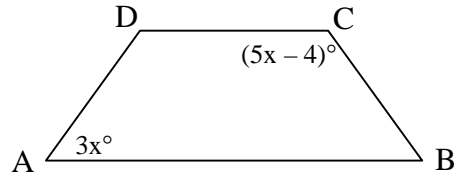
14) If the parallelogram below has an area of 65 square units, what is its height? If necessary, round your answer to two decimal places.



- 15) Find the area of the rhombus below. If necessary, round your answer to two decimal places. (AC = 17, and BD = 20.)



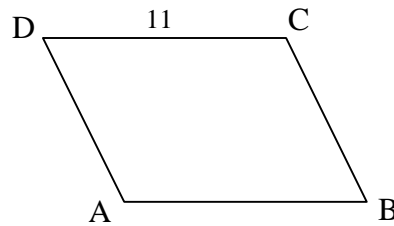
- 16) What is the value of  $x$  in the isosceles trapezoid below? If necessary, round your answer to two decimal places.



- 17) What is the perimeter of this rectangle? (Rectangle ABCD with AB = 7 and AD = 10.)

- 18) If the bases of an isosceles trapezoid are 13 and 21, what is the length of the median? If necessary, round your answer to two decimal places.

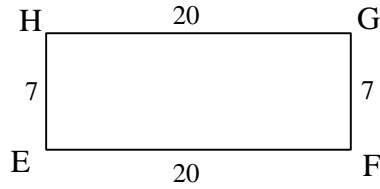
- 19) What is the perimeter of the given rhombus?



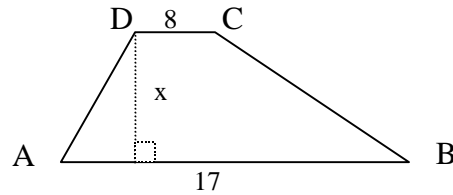
- 20) What is the area of a square with sides of length 12?

21) What is the area, in square units, of the rectangle below?

- A. 54
- B. 140
- C. 70
- D. 100



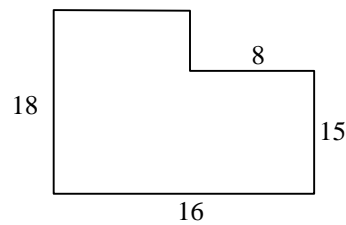
22) If the area of the trapezoid below is 125 square units, what is the value of  $x$ ? If necessary, round your answer to two decimal places.



23) A regular octagon with sides of length 6 and an apothem of length 7.24 has an area of \_\_\_\_\_ square units.

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|-----------|-----------|----------|
| A. 347.52 | B. 173.76 | C. 55.24 |
| D. 13.24  | E. 21.72  | F. 43.44 |

24) What is the area of the polygon below?



25) What is the value of  $y$  in the polygon shown below?

