

NAME: _____

P.I. G.G.39: Investigate, justify, and apply theorems about special parallelograms (rhombuses) involving their angles, sides, and diagonals

1. In rhombus $ABCD$, $AB = 20$ and $AC = 33$. Find the area of the rhombus to the nearest tenth.

[A] 373.0 [B] 513.8
[C] 368.3 [D] 525.0

2. In rhombus $ABCD$, $AB = 11$ and $AC = 19$. Find the area of the rhombus to the nearest tenth.

[A] 159.0 [B] 110.1
[C] 105.4 [D] 170.4

3. In rhombus $ABCD$, $AB = 9$ and $AC = 15$. Find the area of the rhombus to the nearest tenth.

[A] 104.6 [B] 108.0
[C] 79.3 [D] 74.6

4. Rob is making a quilt. In each square block he has placed a rhombus made from different fabric. The area of each rhombus is 24 cm^2 and one diagonal is 6 cm long. How much trim will he need to attach a border around the rhombus?

5. Consider four rhombuses, each with sides of length 5, including the square with sides of length 5. Which figure has the maximum area?

[1] A

[2] C

[3] D

[4] 20 cm

[5] The square has maximum area.