

Name: Answer Key

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Quiz Review 10.3-10.5

Given the ratio of two similar figures, find the two missing ratios.

1. Similarity ratio = 5:7 2. Similarity ratio = 3:8 3. Similarity ratio = 2:13

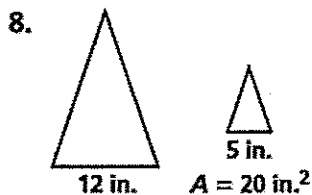
- Perimeter ratio = 5:7 Perimeter ratio = 3:8 Perimeter ratio = 2:13

- Area ratio = 25:49 Area ratio = 9:64 Area ratio = 4:169

Find the similarity ratio of each pair of similar figures.

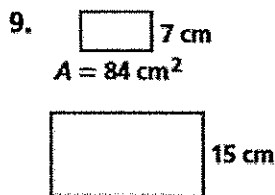
4. two regular hexagons with areas 8 in.^2 and 32 in.^2 $2\sqrt{2} : 4\sqrt{2}$
5. two squares with areas 81 cm^2 and 25 cm^2 $9 : 5$
6. two triangles with areas 10 ft^2 and 360 ft^2 $\sqrt{10} : 6\sqrt{10}$
~~7. two circles with areas $128\pi \text{ cm}^2$ and $18\pi \text{ cm}^2$~~

For each pair of similar figures, the area of the smaller figure is given. Find the area of the larger figure.



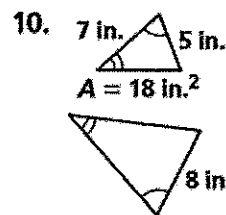
$$5:12$$
$$25:144$$

$$\frac{144}{25} * 20 = 115.2$$



$$7:15$$
$$49:225$$

$$\frac{225}{49} * 84 = 214.28$$



$$5:8$$
$$25:64$$

$$\frac{64}{25} * 18 = 46.08$$

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Find the missing values for each pair of similar figures.

6:9
 $\frac{9}{6} \times 20 = 30$

9.



$p = 20$

$A = ?$



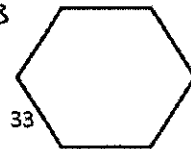
$p = ?$

$A = 45$

$36 = 81$
 $\frac{36}{81} \times 45 = 20$

10.

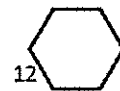
12:53



$p = ?$

$A = 484$

144:1089

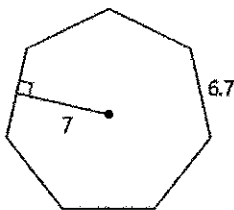


$p = 60$

$A = ?$

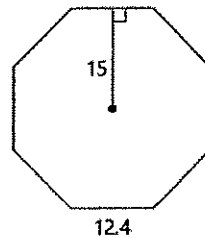
Find the area of each regular polygon. Round your answer to the nearest tenth if necessary.

1)



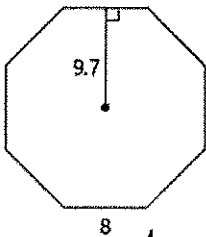
$A = 164.2 \text{ u}^2$

2)



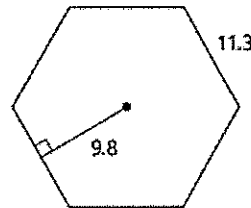
$A = 744 \text{ u}^2$

3)



$A = 310.4 \text{ u}^2$

4)



$A = 332.2 \text{ u}^2$

Find the area of each regular polygon. Leave your answer in simplest form.

17) quadrilateral
 radius = 20

$A = 800 \text{ u}^2$

18) triangle
 radius = 26

~~scribble~~ $A = 878.15 \text{ u}^2$

19) triangle
 radius = 18

$A = 420.89 \text{ u}^2$

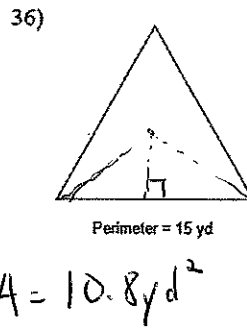
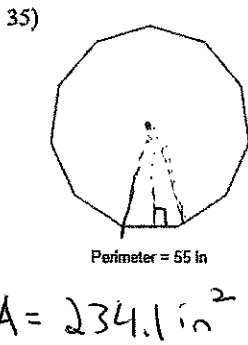
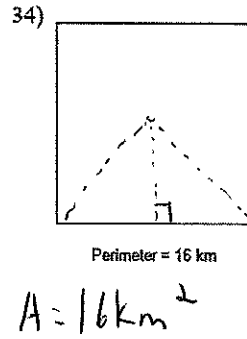
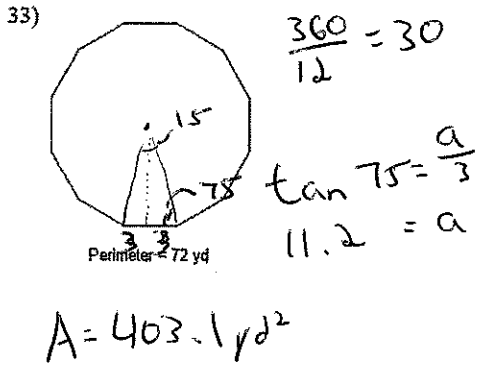
20) quadrilateral
 radius = $8\sqrt{2}$

$A = 256 \text{ u}^2$

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Find the area of each figure. Round your answer to the nearest tenth.



Find the area of each regular polygon. Round your answer to the nearest tenth if necessary.

