

Geometry Unit 5 Review

Name _____

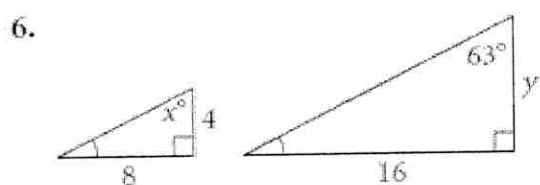
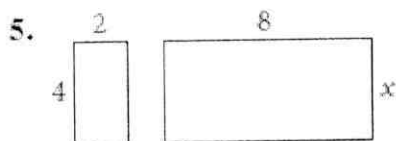
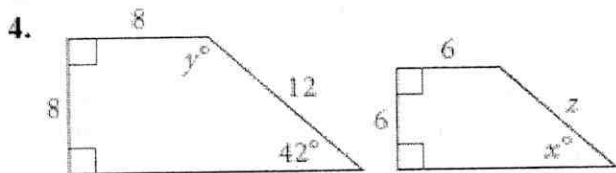
Solve each proportion.

1. $\frac{4}{5} = \frac{x}{20}$

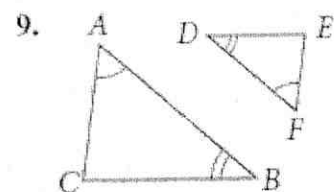
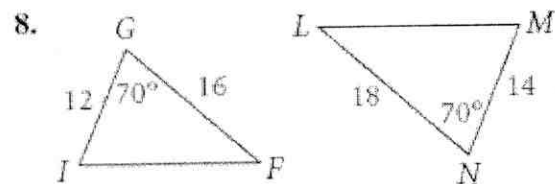
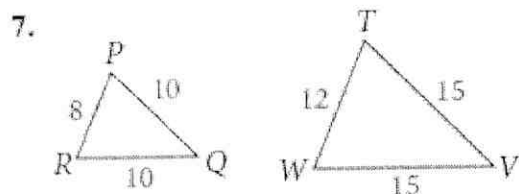
2. $\frac{6}{x} = \frac{10}{7}$

3. $\frac{x}{3} = \frac{8}{12}$

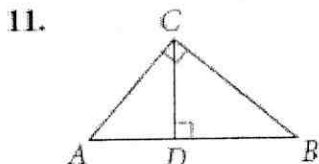
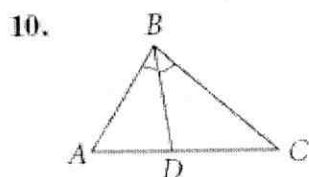
Algebra The figures in each pair are similar. Find the value of each variable.



Are the triangles similar? If yes, write the similarity statement and name the postulate or theorem you can use to prove they are similar. If no, explain.



Use the information shown in the diagram and write a proportion for each triangle.



12. Indirect Measurement A meter stick is held perpendicular to the ground. It casts a shadow 1.5 m long. At the same time, a telephone pole casts a shadow that is 9 m long. How tall is the telephone pole?

13. Photography A photographic negative is 3 cm by 2 cm. If a similar print from the negative is 9 cm long on its shorter side, what is the length of its longer side?

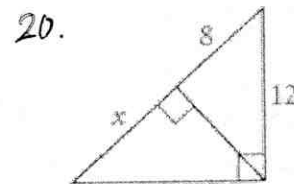
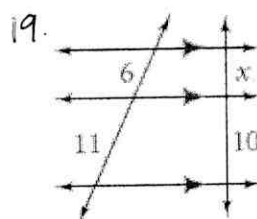
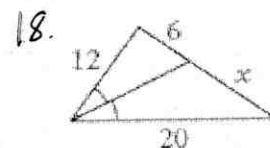
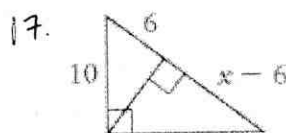
Find the geometric mean of each pair of numbers. If the answer is not a whole number, write it in simplest radical form.

14. 10, 15

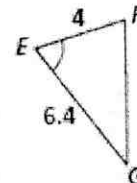
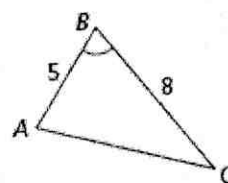
15. 4, 9

16. 6, 12

Find the value of x.



21. How can you prove $\triangle ABC \sim \triangle FEG$?



A AA ~ Postulate

B SSS ~ Theorem

C SAS ~ Theorem

D ASA ~ Theorem

E none of the above

22. $\triangle XYZ \sim \triangle RST$. What can you conclude?

A $XY = RS$

B $m\angle X = m\angle Y$

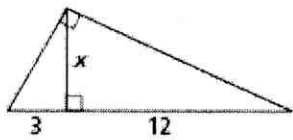
C $m\angle S = m\angle Y$

D $\triangle XYZ \cong \triangle RST$

E none of the above

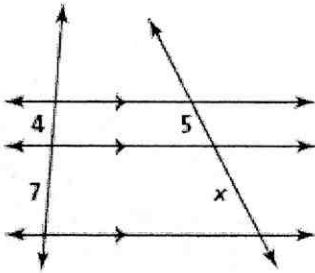
23. Find the value of x .

- A 6 B 4
C $\frac{3}{4}$ D $\frac{144}{3}$
E none of the above



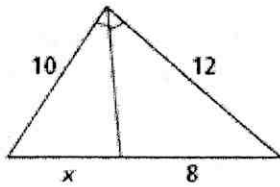
24. Find the value of x .

- A $\frac{28}{5}$ B $\frac{20}{7}$
C 6 D $\frac{35}{4}$
E none of the above



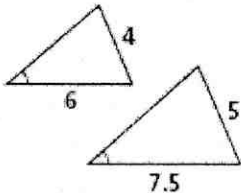
25. Find the value of x .

- A 10 B $\frac{20}{3}$
C 15 D $\frac{48}{5}$
E none of the above

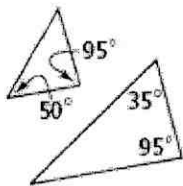


26. In which figure can you conclude that the triangles are similar?

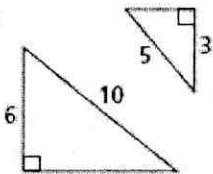
I.



II.



III.



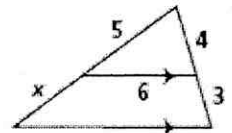
- A I and II B I and III C II and III
D I, II and III E none of the above

27. If $\frac{x}{y} = \frac{m}{p}$, what can you conclude?

- A $xy = mp$ B $\frac{x}{p} = \frac{m}{y}$ C $xm = py$
D $\frac{p}{y} = \frac{m}{x}$ E none of the above

28. Find the value of x .

- A $\frac{15}{4}$ B $\frac{12}{5}$
C $\frac{20}{3}$ D 2
E none of the above



ACTICE

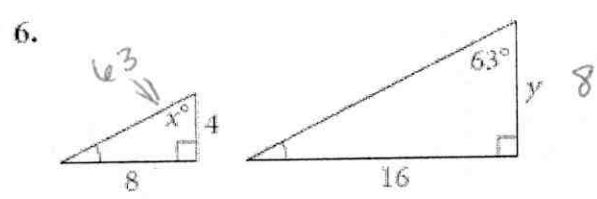
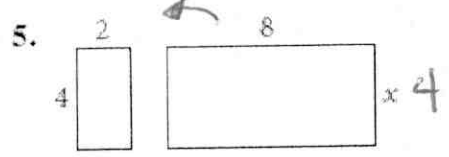
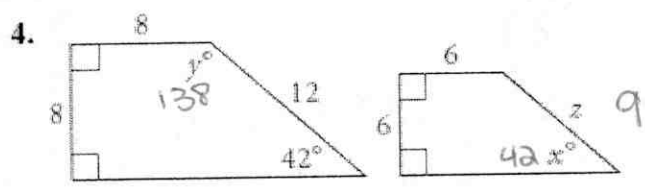
GEOMETRY Unit REVIEW

Name _____

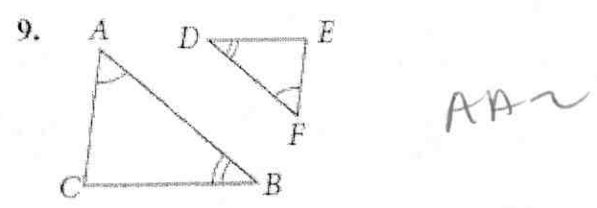
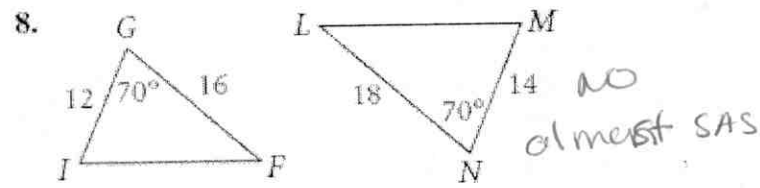
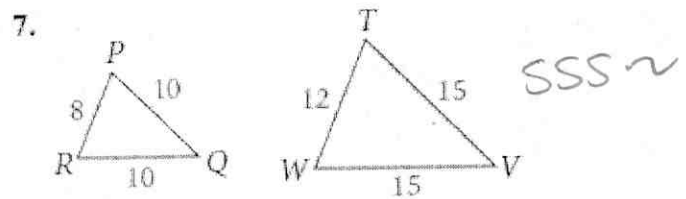
Solve each proportion.

1. $\frac{4}{5} = \frac{x}{20}$ 16 2. $\frac{6}{x} = \frac{10}{7}$ 4.2 3. $\frac{x}{3} = \frac{8}{12}$ 2

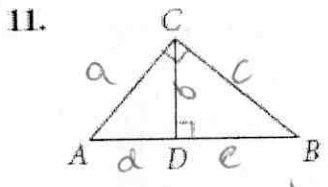
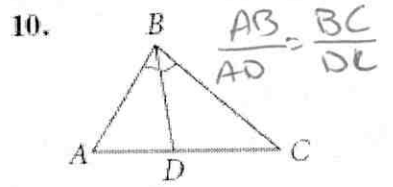
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Are the triangles similar? If yes, write the similarity statement and name the postulate or theorem you can use to prove they are similar. If no, explain.



Use the information shown in the diagram and write a proportion for each triangle.



$\frac{a}{d} = \frac{b}{e} = \frac{c}{f}$

12. Indirect Measurement A meter stick is held perpendicular to the ground. It casts a shadow 1.5 m long. At the same time, a telephone pole casts a shadow that is 9 m long. How tall is the telephone pole?

$\frac{1.5}{x} = \frac{9}{9}$
 $x = 6$

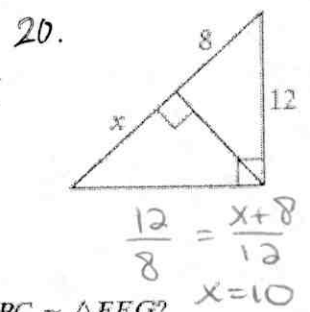
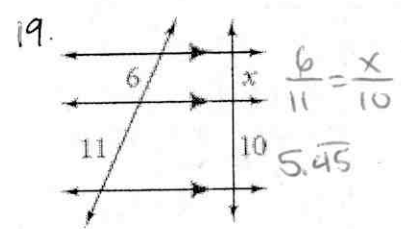
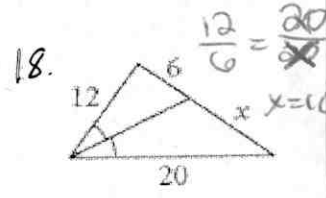
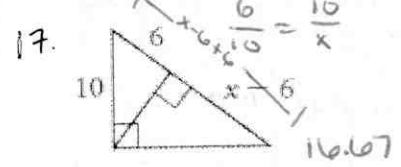
13. Photography A photographic negative is 3 cm by 2 cm. If a similar print from the negative is 9 cm long on its shorter side, what is the length of its longer side?

$\frac{3}{2} = \frac{9}{x}$
 $x = 13.5$

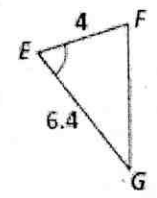
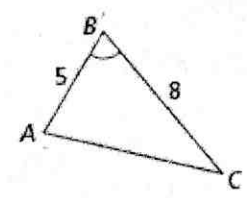
Find the geometric mean of each pair of numbers. If the answer is not a whole number, write it in simplest radical form.

14. 10, 15 $\frac{10}{x} = \frac{x}{15}$ 12.25 15. 4, 9 $\frac{4}{x} = \frac{x}{9}$ 6 16. 6, 12 $\frac{6}{x} = \frac{x}{12}$ $6\sqrt{2}$ or 8.5

Find the value of x.



21. How can you prove $\triangle ABC \sim \triangle FEG$?



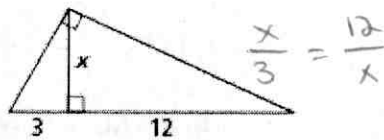
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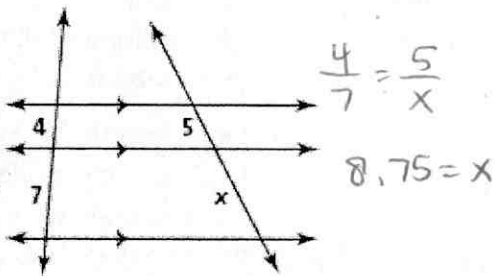


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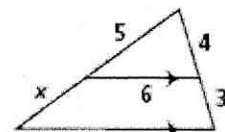
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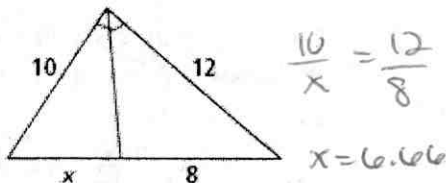
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C $\frac{20}{3}$ D 2
E none of the above



$$\frac{5}{x} = \frac{4}{3}$$

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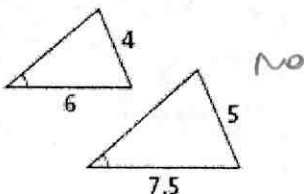
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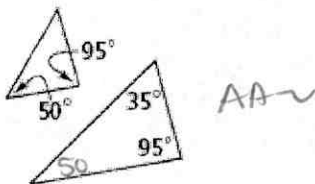
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ANSWERS

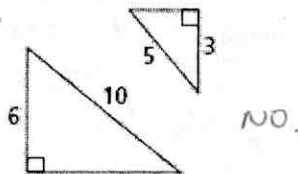
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D I, II and III E none of the above