

NAME _____

MATH 095
CHAPTER 6 REVIEW
SHOW ALL WORK

Use a calculator to approximate the square root. Round the square root to the nearest thousandth.

1) $\sqrt{58}$

Write the ratio as a ratio of whole numbers using fractional notation. Write the fraction in simplest form.

2) 8 to 12

3) 77 kilometers to 84 kilometers

Write the rate as a fraction in simplest form.

4) 54 miles in 18 minutes

Write the rate as a unit rate.

5) 360 miles in 6 hours

Find the unit price.

- 6) Find which is the better buy (lower cost per ounce) by finding each unit price rounded to three decimal places if necessary. Assume that different sizes of the same brand are being compared.

Popcorn:

\$1.20 for 20 ounces

\$1.17 for 18 ounces

Write the sentence as a proportion.

- 7) 18 children is to 30 bicycles as 3 children is to 5 bicycles

Determine whether the proportion is true or false.

8) $\frac{15}{6} = \frac{5}{2}$

9) $\frac{6}{16} = \frac{4}{9}$

Solve the proportion for the given variable.

10) $\frac{x}{7} = \frac{15}{21}$

Solve.

- 11) The ratio of a quarterback's completed passes to attempted passes is 3 to 7. If he attempted 14 passes, find how many passes he completed. Round to the nearest whole number if necessary.

Find the square root.

12) $\sqrt{64}$

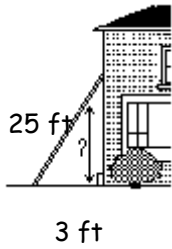
13) $\sqrt{\frac{144}{49}}$

Sketch the right triangle and find the length of the side not given. If necessary, approximate the length to the nearest thousandth.

14) leg = 9, leg = 12

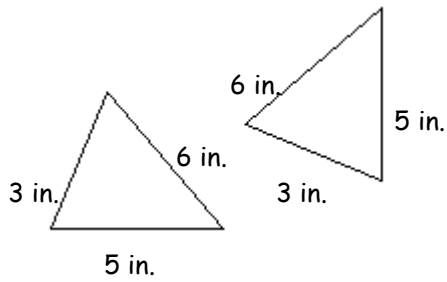
Solve.

- 15) A 25-foot ladder is leaning against a house with the base of the ladder 3 feet from the house. How high up the house does the ladder reach? If necessary, round to the nearest tenth foot.

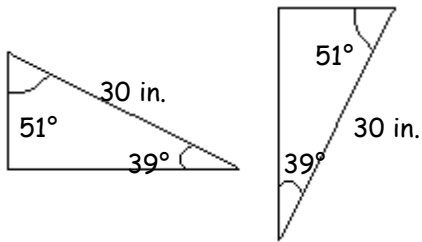


Determine whether the pair of triangles is congruent. If congruent, state the reason why, such as SSS, SAS, or ASA.

16)

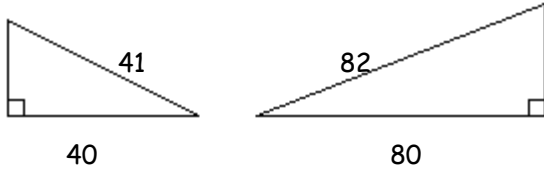


17)



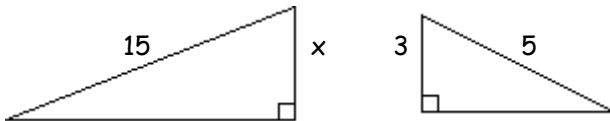
Find the ratio of the corresponding sides of the given similar triangles. Write the ratio in simplest form.

18)



Given that the pair of triangles is similar, find the length of the side labeled x .

19)



Solve.

- 20) If a flagpole 21 feet tall casts a shadow that is 28 feet long, find the length of the shadow cast by an antenna which is 12 feet tall. Round to the nearest tenth if necessary.