OGT Math Quiz ~ 9th Grade

ACADEMIC STANDARD: NUMBER, NUMBER SENSE, AND OPERATIONS
Computing with Ratios and Proportions
(Benchmark G, Indicator 4c)

A) Solve these proportions.
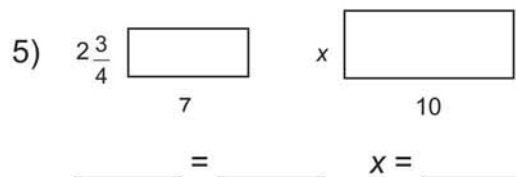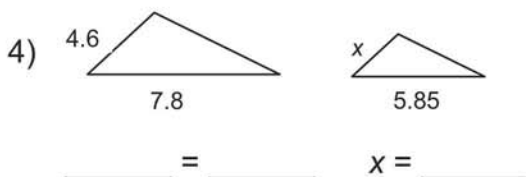
1) $\dfrac{3.25}{a} = \dfrac{75}{90}$

$a =$ _____

2) $\dfrac{7}{5\frac{1}{4}} = \dfrac{b}{6}$

$b =$ _____

3) $\dfrac{4\frac{3}{4}}{c} = \dfrac{5.6}{9.2}$

$c =$ _____

B) Set up a proportion and find the missing side for these similar figures.

4) 4.6 / 7.8 x / 5.85

_____ = _____ $x =$ _____

5) $2\frac{3}{4}$ [ ] / 7 x [ ] / 10

_____ = _____ $x =$ _____

C) Using the given measurement conversion facts, set up a proportion and find the measures. (Round to two decimal places.)
Facts: 1 ounce = 28.35 grams   1 inch = 2.54 centimeters

6) 9 inches = _____ centimeters

_____ = _____

7) 7.8 ounces = _____ grams

_____ = _____

8) 17 centimeters = _____ inches

_____ = _____

9) 125 grams = _____ ounces

_____ = _____

WRITTEN RESPONSE QUESTIONS:

D) After running track, the girls on the team determined their pulse rate by finding their wrist pulse and counting the number of heartbeats for ten seconds.
Their results were: Tracy – 18   Natalie – 28   Lisa – 22   Georgia – 20

10) Using a proportion, explain how to find the pulse rate per minute.

11) The pulse rate should fall between 130 and 150 beats per minute. Which girls fall in the desired range? Justify your response.

NAME: _____   Date: _____   Score: _____