Unit 2: Equations Mastery Quiz 4 TAKE HOME

(2-6) I can find & convert ratios & rates
(2-7) I can solve proportional equations
(2-8) I can set-up/solve equations with similar figures & indirect measure
Multiple Choice (3 Points Each)

_____ 1 Which expression can be used to change 75 kilometers per hour to meters per minute?

A $\dfrac{75km}{1hr} \times \dfrac{1km}{1000m} \times \dfrac{1hr}{60\,min}$

C $\dfrac{75km}{1hr} \times \dfrac{1000m}{1km} \times \dfrac{1hr}{60\,min}$

B $\dfrac{75km}{1hr} \times \dfrac{1km}{1000m} \times \dfrac{60\,min}{1hr}$

D $\dfrac{75km}{1hr} \times \dfrac{1000m}{1km} \times \dfrac{60\,min}{1hr}$

_____ 2 A soda container holds $5\frac{1}{2}$ gallons of soda. How many ounces of soda does this container hold?
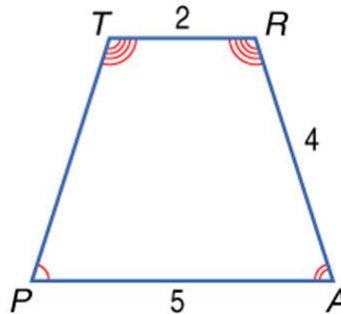
> 1 quart = 32 ounces
> 1 gallon = 4 quarts

A 44   C 640
B 176   D 704

_____ 3 The two polygons are similar. Solve for b.

A 1.2   C 7.2
B 2.1   D 9.3

_____ 4 What is the solution of $\dfrac{k+4}{2} = \dfrac{k+9}{3}$

A 1   C 6
B 5   D 14

_____ 5 Solve for x: $\dfrac{x-3}{x+8} = \dfrac{3}{5}$
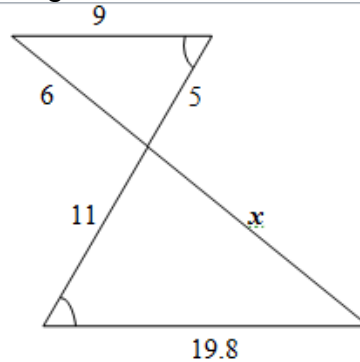
A $\dfrac{11}{2}$ C $\dfrac{39}{2}$

B $\dfrac{39}{8}$ D $\dfrac{9}{2}$

6 In the figure below. The two triangles are similar. What is the value of x?
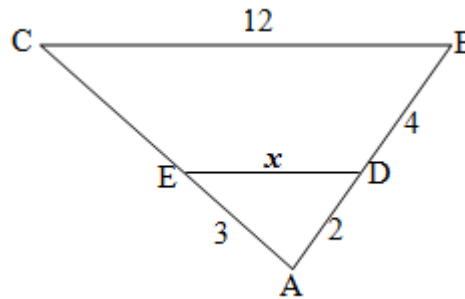

- A 12.4
- B 13.2
- C 14
- D 18.6

7 A cell phone can receive 120 messages per minute. At this rate, how many messages can the phone recieve in 150 seconds?
- A 48
- B 75
- C 300
- D 18,000

8 Triangles ADE & ABC are similar. Find the value of $\overline{ED}$

- A 4
- B 5
- C 6
- D 8

9 If the Student Council has 36 members and ratio of boys to firls is 4:5, then the number of boys on the student council is?
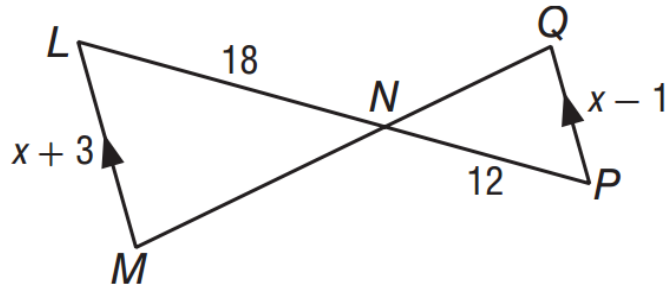- A 10
- B 12
- C 20
- D 42

10 Solve for x: $\dfrac{6x-4}{2} = 3x+1$

- A $5/3$
- B $\varnothing$
- C Infinitely many solutions.
- D 1

Constructed Response (20 Points)

11 **Use the diagram below to answer all parts of question 11**
    △*LMN* **and** △*PQN* **are similar.**

A.) Set up a proportion and solve for x (10 Points) Show all work

X =_____

B.) Find $\overline{LM}$. (5 Points) **Show all work.**

$\overline{LM}$ = _____

C.) Find $\overline{QP}$ (5 Points) **Show all work.**

$\overline{QP}$=_____

Name:_____	**SCORE:**	☐ Target Mastery (90 – 100%)
		☐ On Target (80 – 89%)
Class:_____Date:_____		☐ Approaching Target (70 – 79%)
		☐ Far Below Target (69% or ↓)

TAKE HOME QUIZ AGREEMENT
11/22/16

Read & initial next to each statement, then print & sign your name where indicated

_____ I understand that I many not copy or distribute this exam to anyone.

_____ I understand that I must return the examination to Ms. Passarella by Wednesday 11/30/16

_____ I understand that I MUST show all work or describe my answers, even for the multiple choice (attach a separate paper if necessary) or I will not receive credit for the correct answer.

_____ I understand that I cannot copy answers from other students or seek assistance for this take home quiz.

_____I understand that if I have another student's quiz in my possession, my score & the student's score will result in a 0%.

_____ I understand that if I work on this quiz in another class, it will result in a 0%.

_____I understand that violation of this agreement will result in a 0% on this quiz & it cannot be replaced. It will be averaged in with my other assessments for this marking period

Print Name:

_____

Sign Name: