7.4

Name (print first and last) _____ **Per_____ Date:** _3/6 due 3/7_

7.4 Similarity: Write and solve proportions from figures   **Geometry Regents 2013-2014 Ms. Lomac**
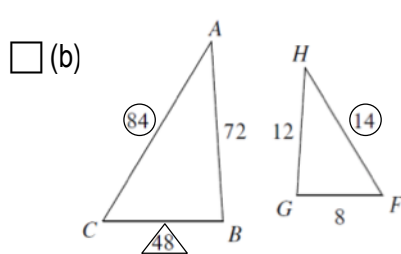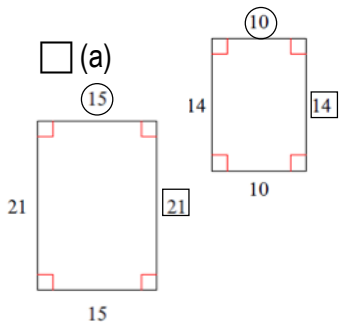
SLO: I can write and solve proportions from figures.

Dilation (Notation D$_k$)	Segment	Length	Similar	Image
Coordinates	Direction	Congruent	Units	Original
Scale factor	Center of dilation	Origin	Proportional	Corresponding

(1) ☐ Of A, B, C, and D, which 2 pictures are similar? Explain how you know they are similar..
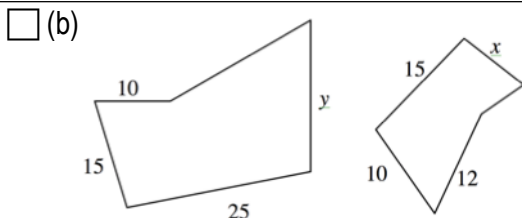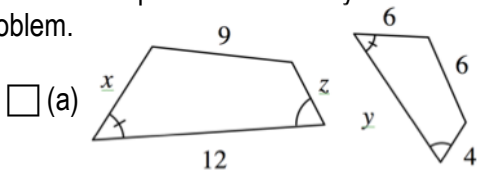
_____

_____

_____

_____

(2) ☐ Are these pairs of shapes similar? For shapes to be similar, they must have **congruent** _____ and **proportional** _____. (see lesson 7.2). Provide the evidence necessary to show that these pairs of shapes are similar. **Proportional means** _____
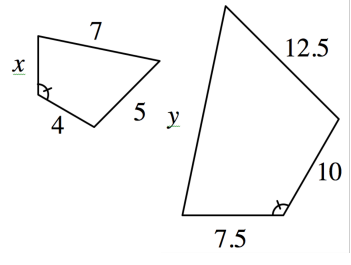
☐ (a)

☐ (b)

☐ (c) In part (b), why does 84 correspond to 14 instead of 12? ("because they are both circled" is not an acceptable

answer. WHY are they both circled?) _____

(3) ☐ Write and solve a proportion to find the measure of each variable. Use shapes to identify numbers on corresponding sides. Each equation should only have ONE variable. You may need to write and solve more than one equation per problem.
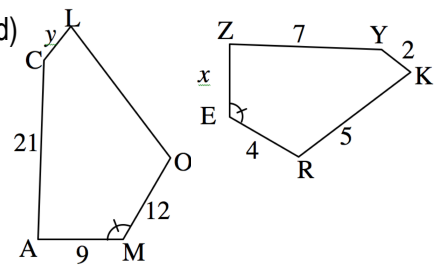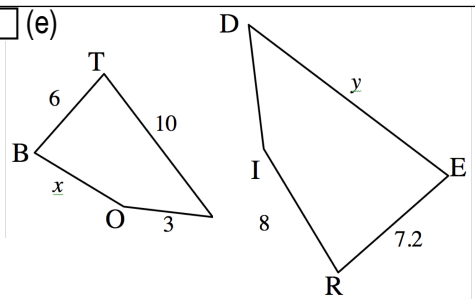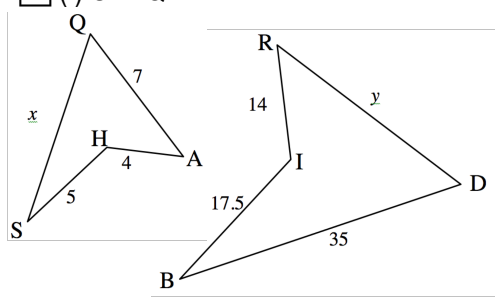
☐ (a)

_____

☐ (b)

7.4

☐ (c)

7

x

4

5   y

12.5

10

7.5

☐ (d)

L

y

C

21

O

12

A   9   M

Z   7   Y   2   K

x

E

4   5

R

☐ (e)

D

T

6

10

B

x

O   3

y

I

8

E

7.2

R

☐ (f) SHAQ ~ BIRD

Q

7

x

H

4   A

5

S

R

14

y

I

17.5

35

D

B

☐ (g) Find the value of x.

45

35   35

40

$2x + 4$

16