Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_

**Geometry Quiz – Similar Figures**

**Part I: Proportions** – State if each pair of ratios forms a proportion. Write ‘*yes’* if the ratios form a proportion. Write ‘*no’* if the ratios do not form a proportion.

1. \_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_

**Part II: Solving Proportions** – Solve each proportion for the missing variable.

1. \_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_

**Part III: Similar Figures** – State if each pair of polygons are similar. Write ‘*similar*’ if the polygons are similar. Write ‘*not similar’* if the polygons are not similar.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

35

18

21

21

30

30

18

35

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

32

8

36

36

7

7

32

8

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8

4

7

14

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

25

20

12.4

15.5

35

28

**Part IV: Similar Figures** – Each pair of polygons are similar. Find the missing side length (solve for x).

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12

15

25

?

24

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

63

35

?

56

48

1. X = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

45

2x + 4

35

35

16

40

1. X = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6x-6

30

63

35

49

42

**Part IV: Scale Factor** – Each pair of polygons are similar. Using the scale factor, solve for x.

1. X = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3x +11

42

A

B

Scale factor from A to B = 5:6

1. X = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8x -7

A

B

14

Scale factor from A to B = 2:7