Name: _____ Date: _____

Fresh Math

Dilations - Medium

Find the image point after applying the given dilation. For problems with two points given, find the scale factor or center of dilation.

1. (16, 8), k = $\frac{1}{4}$ from origin
2. (-8, 12), k = $\frac{1}{4}$ from origin
3. (2, 0), k = $\frac{1}{2}$ from origin
4. (-8, 2) -> (-12, 3) from origin; find k
5. (-15, 9) -> (-5, 3) from origin; find k
6. (4, -12), k = $\frac{1}{4}$ from origin
7. (-6, -6), k = $\frac{1}{3}$ from origin
8. (15, 0), k = $\frac{1}{3}$ from origin
9. (-9, 12), k = $\frac{1}{3}$ from origin
10. (15, -6), k = $\frac{2}{3}$ from origin

Name: _____ Date: _____

Fresh Math

Dilations - Medium

Find the image point after applying the given dilation. For problems with two points given, find the scale factor or center of dilation.

11. (9, 6), k = $\frac{1}{3}$ from origin

12. (12, 6), k = $\frac{5}{2}$ from origin

13. (8, -2) -> (12, -3) from origin; find k

14. (9, 6), k = $\frac{2}{3}$ from origin

15. (12, 12) -> (8, 8) from origin; find k

16. (-3, 18) -> (-2, 12) from origin; find k

17. (10, -6), k = $\frac{1}{2}$ from origin

18. (-12, 10), k = $\frac{5}{2}$ from origin

19. (6, -12), k = $\frac{1}{2}$ from origin

20. (-8, -6) -> (-4, -3) from origin; find k

Dilations - Medium - Answer Key

1. (16, 8), k = $\frac{1}{4}$ from origin

   (4, 2)

2. (-8, 12), k = $\frac{1}{4}$ from origin

   (-2, 3)

3. (2, 0), k = $\frac{1}{2}$ from origin

   (1, 0)

4. (-8, 2) -> (-12, 3) from origin; find k

   k = 3/2

5. (-15, 9) -> (-5, 3) from origin; find k

   k = 1/3

6. (4, -12), k = $\frac{1}{4}$ from origin

   (1, -3)

7. (-6, -6), k = $\frac{1}{3}$ from origin

   (-2, -2)

8. (15, 0), k = $\frac{1}{3}$ from origin

   (5, 0)

9. (-9, 12), k = $\frac{1}{3}$ from origin

   (-3, 4)

10. (15, -6), k = $\frac{2}{3}$ from origin

    (10, -4)

Dilations - Medium - Answer Key

11. (9, 6), k = $\frac{1}{3}$ from origin

(3, 2)

12. (12, 6), k = $\frac{5}{2}$ from origin

(30, 15)

13. (8, -2) -> (12, -3) from origin; find k

k = 3/2

14. (9, 6), k = $\frac{2}{3}$ from origin

(6, 4)

15. (12, 12) -> (8, 8) from origin; find k

k = 2/3

16. (-3, 18) -> (-2, 12) from origin; find k

k = 2/3

17. (10, -6), k = $\frac{1}{2}$ from origin

(5, -3)

18. (-12, 10), k = $\frac{5}{2}$ from origin

(-30, 25)

19. (6, -12), k = $\frac{1}{2}$ from origin

(3, -6)

20. (-8, -6) -> (-4, -3) from origin; find k

k = 1/2