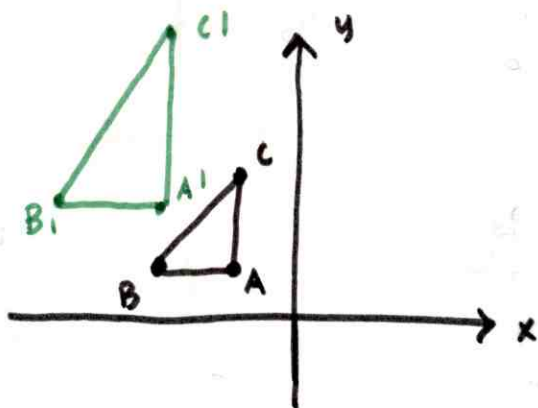


6.7

3) $A(-2, 1)$, $B(-4, 1)$, $C(-2, 4)$; $k=2$ $(x, y) \rightarrow (2x, 2y)$

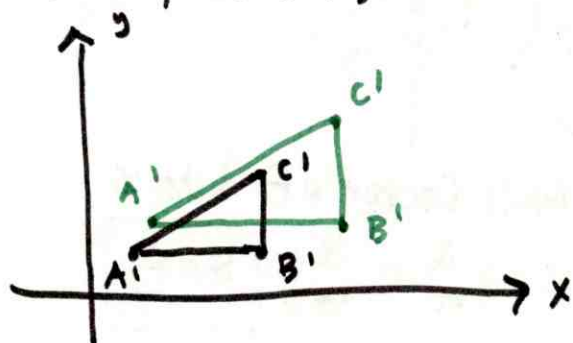


$A'(-4, 2)$

$B'(-8, 2)$

$C'(-4, 8)$

5) $A(1, 1)$, $B(6, 1)$, $C(6, 3)$; $k=1.5$ $(x, y) \rightarrow (\frac{3}{2}x, \frac{3}{2}y)$

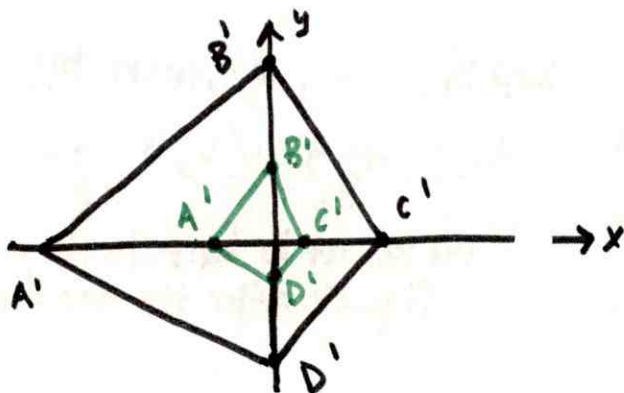


$A'(1.5, 1.5)$

$B'(9, 1.5)$

$C'(9, 4.5)$

7) $A(-8, 0)$, $B(0, 8)$, $C(4, 0)$, $D(0, -4)$; $k=\frac{3}{8}$ $(x, y) \rightarrow (\frac{3}{8}x, \frac{3}{8}y)$



$A'(-3, 0)$

$B'(0, 3)$

$C'(1.5, 0)$

$D'(0, -1.5)$

9) Reduction

$$k = \frac{3}{6} \frac{B}{A}$$
$$\boxed{k = \frac{1}{2}}$$

10) Enlargement

$A(4, 2)$

$B(6, 3)$

$$k = \frac{6}{4} \text{ or } \frac{3}{2} \frac{B}{A}$$

$$\boxed{k = \frac{3}{2}}$$

11) Enlargement

$$k = \frac{6}{2} \frac{B}{A}$$

$$\boxed{k = 3}$$

12) Reduction

$$\boxed{k = \frac{1}{3} \frac{B}{A}}$$

13) $PQRS \sim JKLM$

$L(-2, -1)$

$m(-1, -2) \xrightarrow{\times 2} \boxed{S(-2, -4)}$
C

$R(-4, -2)$

$k = \frac{-4}{-2} \text{ or } \frac{-2}{-1}$

$k = 2$

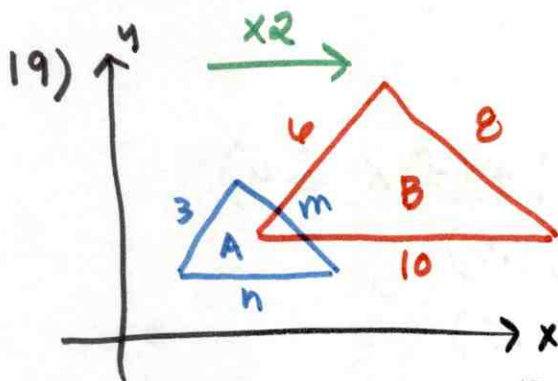
15) $\frac{2}{4} = \frac{4}{6}$
 $\frac{1}{2} \neq \frac{2}{3}$

The figures are not \sim \therefore they can not be a dilation

16) Rotation

17) Reflection

18) Dilation



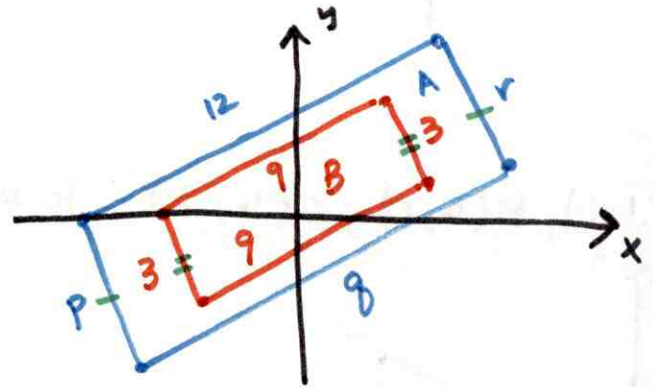
Scale factor of A to B

$k = \frac{B}{A} \rightarrow \frac{6}{3} \quad \boxed{k = 2}$

$2n = 10$
 $\boxed{n = 5}$

$2m = 8$
 $\boxed{m = 4}$

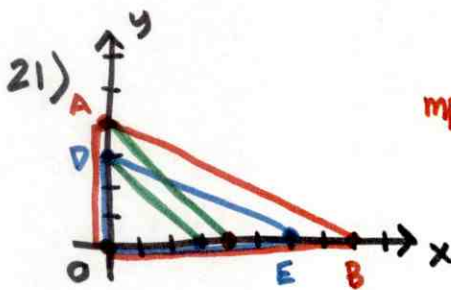
20)



Scale factor of A to B

$k = \frac{B}{A} \rightarrow \frac{9}{3} \quad \boxed{k = 3}$

$\frac{3}{4} = \frac{3}{r} \quad \boxed{r = 4} \quad \boxed{P = 4} \quad \boxed{Q = 12}$



$OB = 8$
 $mp = \frac{8}{2} = 4$
 $m(4, 0)$

$OE = 6$
 $mp = \frac{6}{2} = 3$
 $m(3, 0)$

$k = \frac{8}{6} = \boxed{\frac{4}{3}}$

$\boxed{C} \quad 133 \frac{1}{3} \%$

22) Dilate by 2, then by $\frac{1}{2}$.

$A(3, 4) \xrightarrow{\times 2} A'(6, 8) \xrightarrow{\times \frac{1}{2}} A''(3, 4)$

The result is back to the original figure after the two dilations.

23) $A(-3, 3), B(-3, 1), C(0, 1)$

$D(6, 6), E(6, 2), F(0, 2)$

$(x, y) \rightarrow (2x, 2y) \rightarrow (-x, y)$

Dilation and reflection

24) $A(6, 0), B(9, 6), C(12, 6)$

$D(0, 3), E(1, 5), F(2, 5)$

$(x, y) \rightarrow (\frac{1}{3}x, \frac{1}{3}y) \rightarrow (x-2, y+3)$

Dilation and translation