

Compositions of motion Practice

$$\textcircled{1} (x, y) = (x+4, y+2) \rightarrow (y+2, x+4)$$

$$\textcircled{2} (x, y) = (-y, x) \rightarrow (-3y, 3x)$$

$$\textcircled{3} (x, y) = (x-4, y-2) \rightarrow -(x-4), y-2$$

$$\rightarrow (-x+4, y-2)$$

$$\textcircled{4} (x, y) = (y, -x) \rightarrow \left(\frac{1}{3}y, -\frac{1}{3}x\right)$$

$$\textcircled{5} (x, y) = (x+4, y-2) \rightarrow (x+4, -(y-2))$$

$$\rightarrow (x+4, -y+2)$$

$$\textcircled{6} (x, y) = (-x, -y) \rightarrow (-2x, -2y)$$

$$\textcircled{7} (x, y) = (x-4, y+2) \rightarrow (y+2, x-4)$$

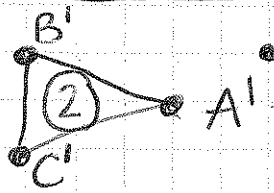
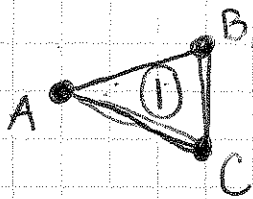
$$\textcircled{8} (x, y) = (-x, y) \rightarrow \left(-\frac{1}{2}x, -\frac{1}{2}y\right)$$

$$\textcircled{9} \text{ c) } (x, y) = (-x, y) \rightarrow (-x+5, y)$$

d) yes order matters

e) 1 & 3 and 2 & 4 are same images

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$$\begin{aligned} A' &= (9, -2) & A'' &= (14, -1) \\ B' &= (6, -1) & B'' &= (11, -1) \\ C' &= (6, -3) & C'' &= (11, -3) \end{aligned}$$