

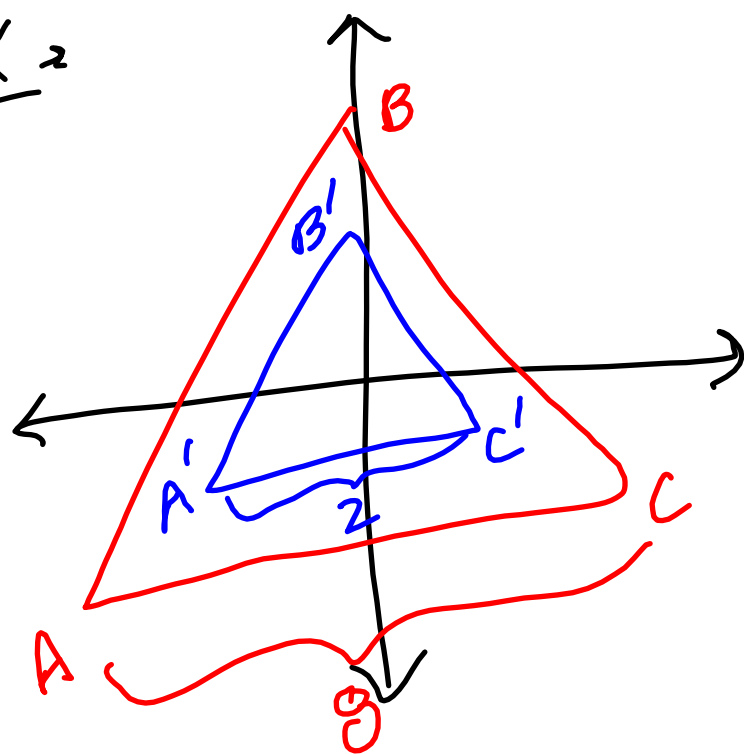
# Dilations

→ Notation →  $D_k$  ( $k = \text{scale factor}$ ) →  $k > 1$  → enlargement  
 $k < 1$  → reduction

- To find scale factor,

$$k = \frac{\text{Image}}{\text{Pre-Image}}$$

EX 2



$$k = \frac{2}{8} = \frac{1}{4}$$

- To find coordinates of image, multiply by scale factor  $k$

EX →  $A(3, 2)$   
 $B(2, 1)$   
 $C(5, 2)$

$$k = 4$$

$$A'(12, 8)$$
$$B'(8, 4)$$
$$C'(20, 8)$$

EX →  $D(5, 9)$

$$E(-5, -6)$$

$$F(-4, 3)$$

$$k = 9$$

$$D'(45, 81)$$

$$E'(-45, -54)$$

$$F'(-36, 27)$$