

Transformations Review

- M7G2: Students will demonstrate understanding of dilations, translations, rotations, and reflections of figures.

Translations

A translation is a transformation that **SLIDES** a figure.

Translations

Translate the points given the following rule.

- Point: $(-3, 11)$ Rule: $(x + 3, y - 8)$
- Point: $(7, -5)$ Rule: $(x, y - 6)$

• $(0, 3)$
• $(7, -11)$

Translations

Find the rule by which each point was translated.

■ Point A: $(2, -9)$ Point A': $(4, 1)$

■ Point C: $(-5, 7)$ Point C': $(-6, -3)$

- $(x + 2, y + 10)$

- $(x - 1, y - 10)$

Reflections

A reflection is a transformation in which a figure is **FLIPPED**.

Reflections

Reflect the points given the following rule.

- Point: $(-12, 21)$ Rule: Over the x - axis
- Point: $(7, -8)$ Rule: Over the y - axis

• $(-12, -21)$
• $(-7, -8)$

Rotations

A rotation is a transformation that **TURN**S a figure about a point.

Dilations

A dilation is a transformation in which a figure is **ENLARGED** or **REDUCED**.

Dilations

Dilate the points given the following rule.

- Point: $(4, 10)$ Rule: 90° Clockwise
- Point: $(-9, -1)$ Rule: 90° Counter-Clockwise
- Point: $(2, 5)$ Rule: 180°

- $(10, -4)$
- $(1, -9)$
- $(-2, -5)$

Dilations

Dilate the points given the following rule.

- Point: $(5, 15)$ Rule: 50%
- Point: $(8, -4)$ Rule: 125%
- Point: $(-12, 16)$ Rule: 75%

- $(2.5, 7.5)$
- $(10, -5)$
- $(-9, 12)$

Dilations

Find the dilation percentage for each point and its image.

- Point T: $(-2, -8)$ Point T': $(-3, -12)$
- Point A: $(-20, 4)$ Point A': $(-15, 3)$

• 66%

• 133%