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Geometry Review Sheet

**The Coordinate Plane**

Quadrant II (-x, y) Quadrant I (x, y)

Quadrant III (-x,-y) Quadrant IV (x,-y)

X-axis (horizontal)

Y- Axis (Vertical)

Quadrant I (x,y)- Ex (5,4)

Quadrant II (-x,y)- Ex (-5,4)

Quadrant III (-x,-y)- Ex (-5,-4)

Quadrant IV (x,-y)- Ex (5, -4)

Practice:

Plot the following points:

1. (-8,3) 5. (-4,0)
2. (-7,-5) 6. (0,-8)
3. (6,-9) 7. (0,5)
4. (4,2) 8. (6,0)

**Translations:**

Define Translation:

True or False:

The “new” or “prime” shape is congruent to the original.

Given the points A, B, C. T 4,4. Label the new points AI, BI, CI. Label the graph. Be sure to include: Axes, Origin, etc.

Point A (-5,-3) Point AI

Point B (-2,-3) Point BI

Point C (-2,-5) Point CI

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Describe the Translation of the following:

A: (-3,3) AI: (3,-2)

B: (-3,6) BI: (3,1)

C: (-7,6) CI: (-1,1)

D: (-7, 3) DI: (-1,-2)

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Given the following points, describe in 3 ways how to write the translation of Point A and Point AI.

A: (-3,4) AI: (2,-3)

1.

2.

3.

**Dilations:**

Draw and label the shape ABCDE. Dilate the shape with the following dilation scale:

Dilation Scale = 1/3

A: (0,0) D: (6,-3)

B: (3,3) E: (3,-3)

C: (6,3)

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Write the coordinates of shape AI BI CI DI EI

AI: DI:

BI: EI:

CI:

Dilate the following coordinates with a scale factor of 2:

A: (-2,2) AI:

B: (1,-1) BI:

C: (0,4) CI:

**Reflections:**

Plot shape ABC, and reflect over **x=0.** Write the coordinates for the Prime shape that correspond to the reflection.

A (4,0)

B (3,4)

C (6,6)

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AI

BI

CI

Plot shape XYZ, and reflect over **y=0.** Write the coordinates for the Prime shape that correspond with the reflection.

X (-3,-1) XI

Y (0,-2) YI

Z (1,-6) ZI

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Plot shape QRSTU, and reflect over **x=-3.** Write the coordinates of the prime shape. Label your axes.

Q (-2,-1)

R (-1,-4)

S (5,-5)

T (6,1)

U (1,3)

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