

Directions: Use graph paper to perform the following transformations. Fill in the chart with the coordinates of the image. Attach your graph paper to the worksheet!

1. Pre-image: A(0,0), B(8,1), C(5,5)

| | |
|---|--|
| Rotate the figure 180° | |
| Reflect the figure over the x-axis | |
| Translate the figure according to $(x,y) \rightarrow (x+6,y-1)$ | |

2. Pre-image: D(-12,6), E(-4,6), F(-6,9), G(-10,9)

| | |
|---|--|
| Translate the figure according to $(x,y) \rightarrow (x+1,y-6)$ | |
| Reflect the figure over the x-axis | |
| Reflect the figure over the y-axis | |

3. Pre-image: H(2,2), I(-2,2), J(-2,-2), K(2,-2)

| | |
|---|--|
| Rotate the figure 180° | |
| Translate the figure according to $(x,y) \rightarrow (x+2,y+2)$ | |
| Reflect the figure over the line $y = x$ | |

4. Pre-image: L(7,2), M(0,9), N(-6,-5), P(1,-12)

| | |
|---|--|
| Reflect the figure over the y-axis | |
| Reflect the figure over the x-axis | |
| Rotate the figure 90° clockwise about the origin | |