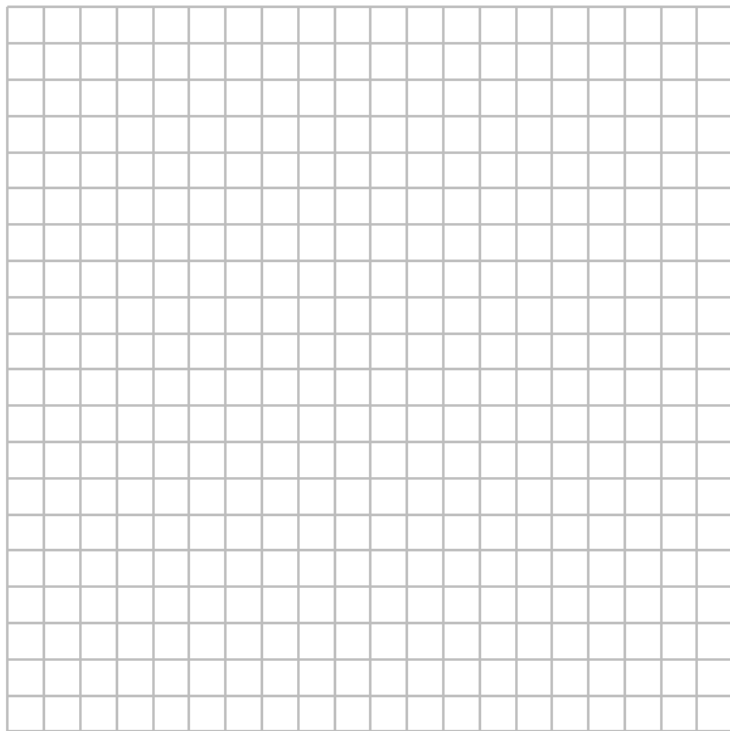
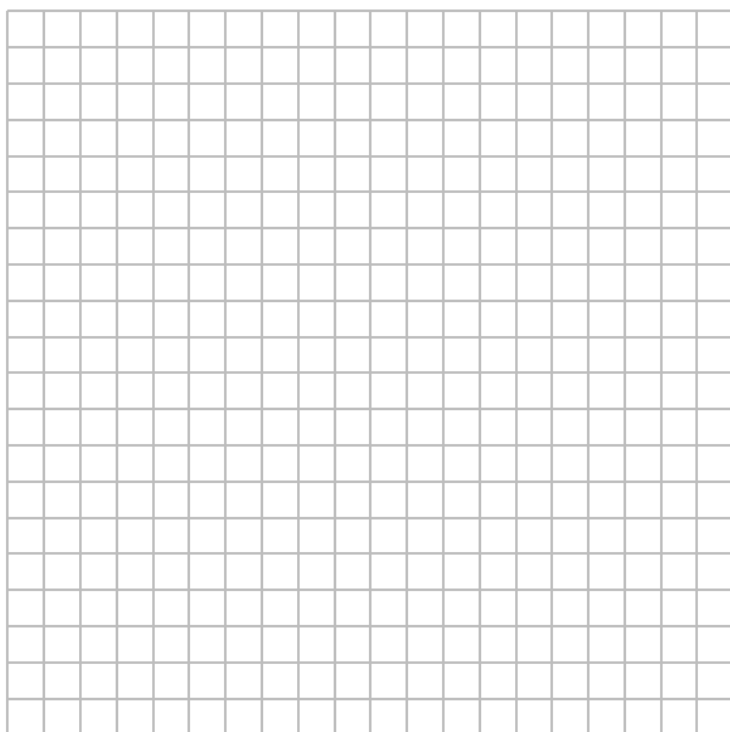


Composition of Transformations – Conic Sections

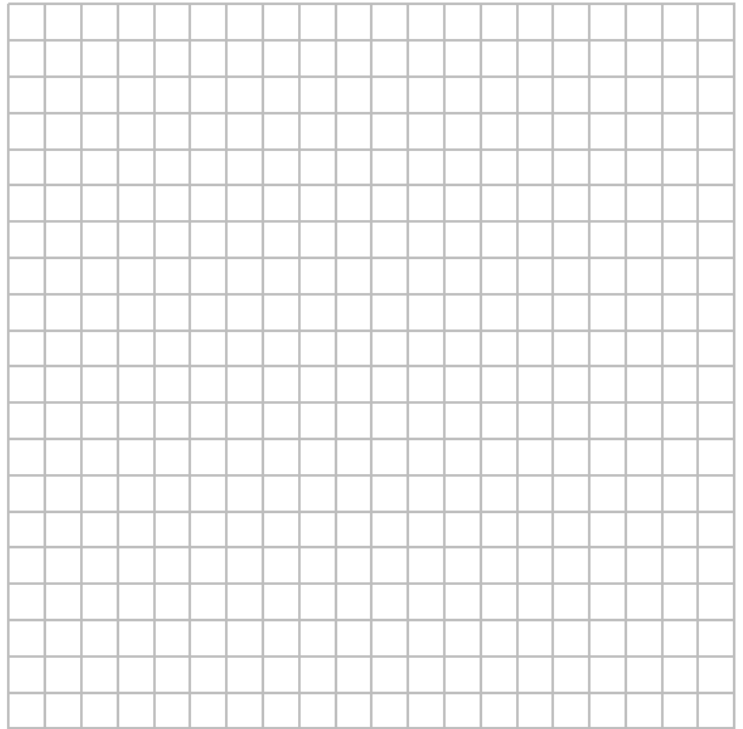
1.
 - a) Graph $y = x^2 + 2$ on the interval $-2 \leq x \leq 2$ and label it a .
 - b) Graph the image of a under the composite $R_{90^\circ} \circ r_{y=-x}$ and label it b .
 - c) What single transformation is this equivalent to?



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2.
 - a) Graph $\frac{x^2}{16} + \frac{y^2}{4} = 1$ and label it a .
 - b) Graph the image of a under the composite $T_{3,2} \circ D_{\frac{1}{2}}$ and label it b .
 - c) Write an equation for b .



3. a) Graph $xy = 4$ and label it a .
- b) Graph the image of a under the composite $R_{-90^\circ} \circ D_2$ and label it b .
- c) Write an equation for b .



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4. Graph and label the following equations, a and b , on the accompanying set of coordinate axes.

$$a : y = x^2$$

$$b : y = -(x - 4)^2 + 3$$

Describe the composition of transformations performed on a to get b .

