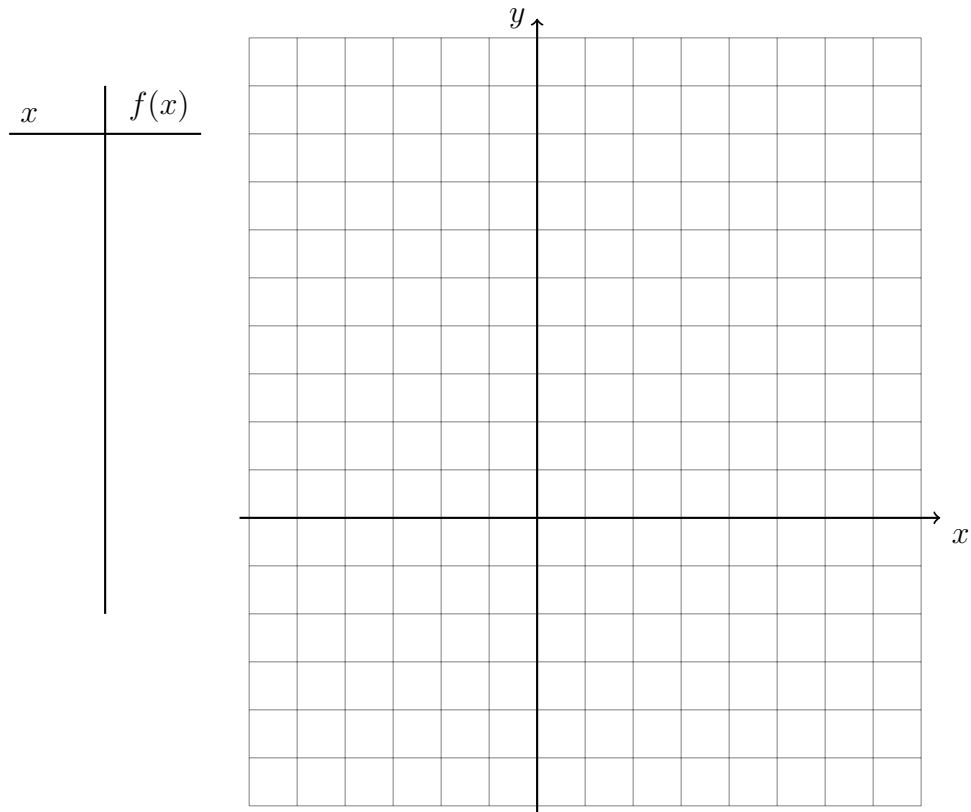


Name:

7-6 Do Now: Quadratic graphs and transformations

1. Complete the t-chart for $x = 0, 1, 2, 3, 4, 5$, then graph and label the function on the grid below. Use pencil for graphs. Draw parabolas as smooth curves.

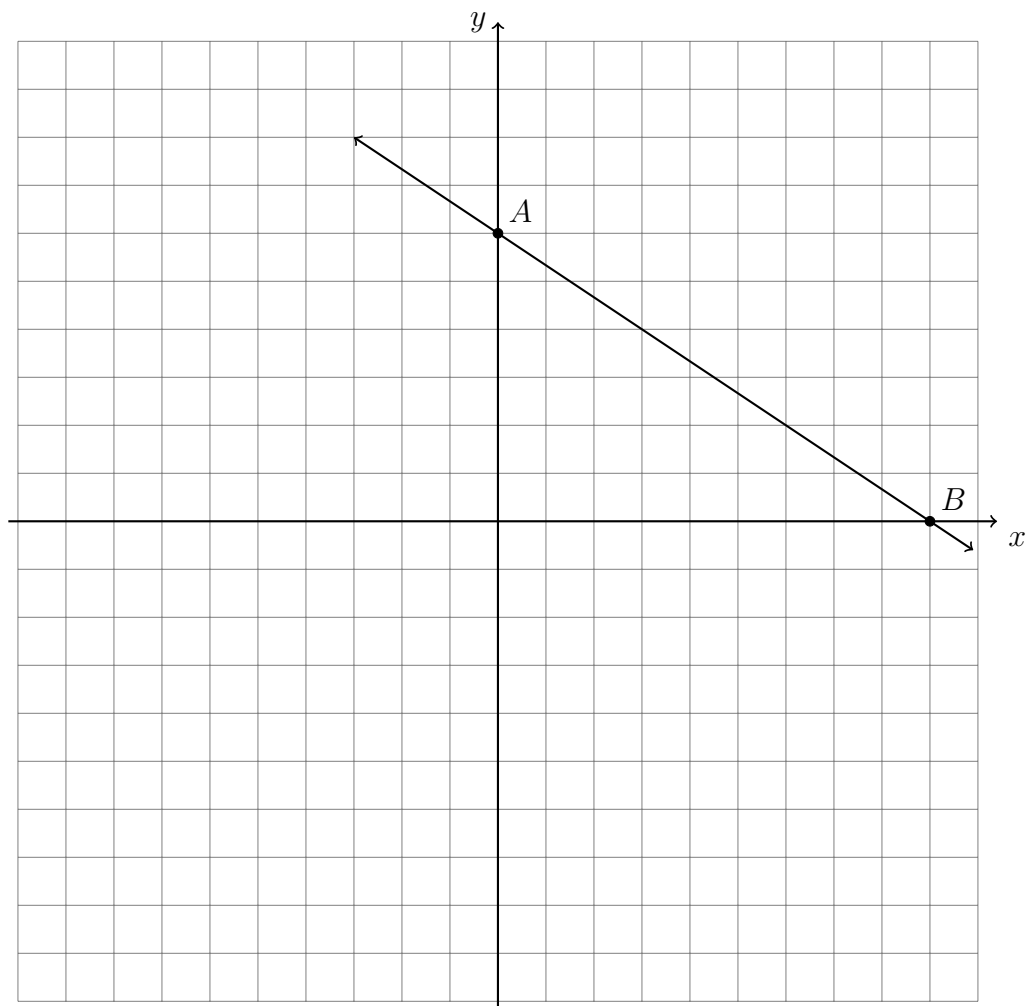
$$f(x) = (x - 3)^2 - 4$$



- (a) Mark the vertex on the graph as an ordered pair.
 - (b) Write down the equation for the axis of symmetry.
-
- (c) The function is translated two units to the right and three units up, $f \rightarrow g$. What is the equation of g ?

2. On the graph below, \overleftrightarrow{AB} is shown with A(0, 6), B(9,0). A dilation of $k = \frac{2}{3}$ centered at the origin maps $\overleftrightarrow{AB} \rightarrow \overleftrightarrow{A'B'}$.

Draw $\overleftrightarrow{A'B'}$ on the graph, labeling A' and B' .



(a) Write down the equation \overleftrightarrow{AB}

(b) Write down the equation $\overleftrightarrow{A'B'}$