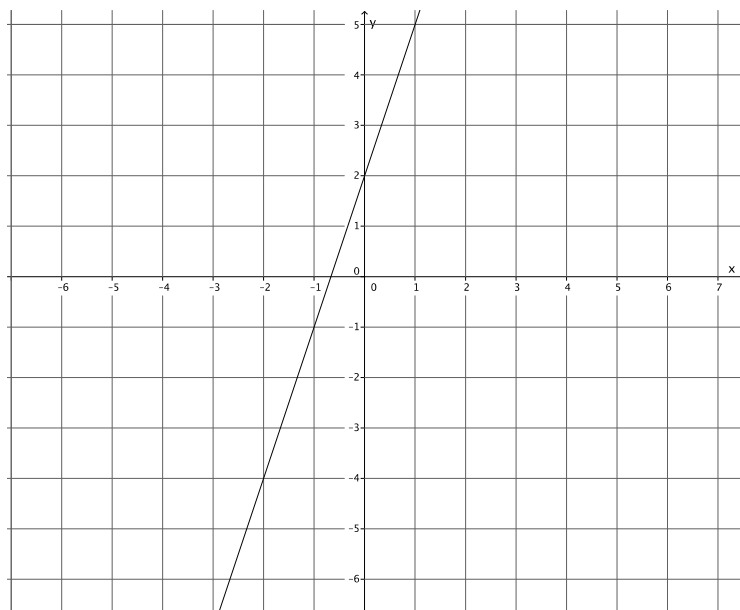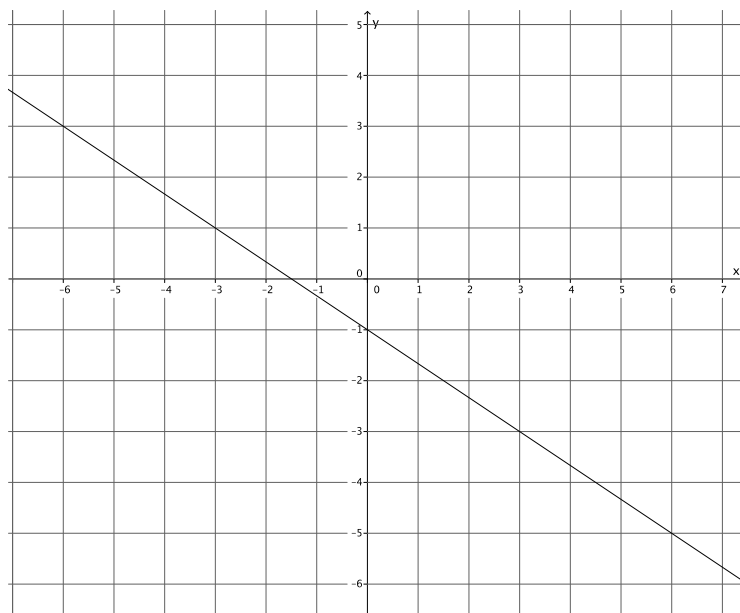1. Write the equation that represents the line shown.



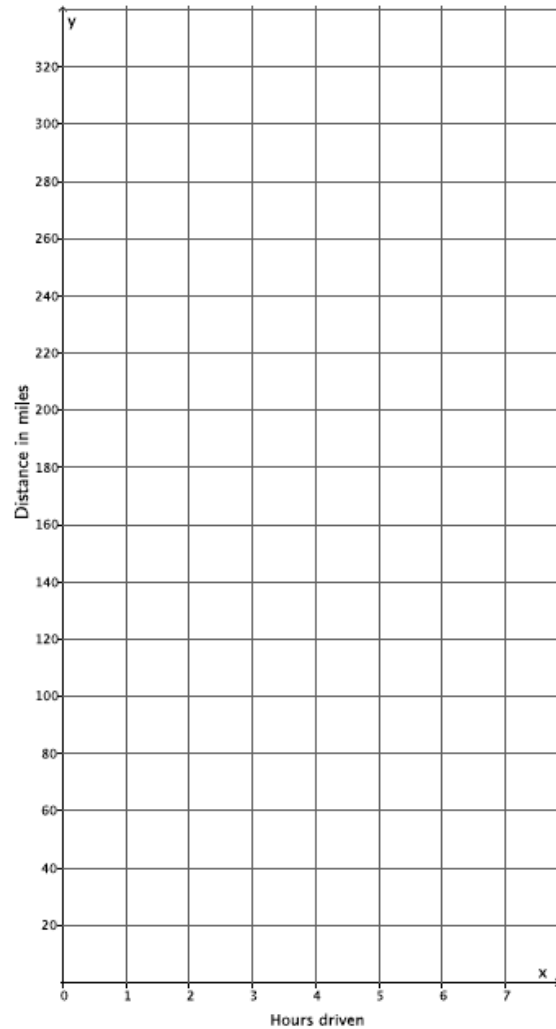2. Write the equation that represents the line shown.

3.  A group of friends are on a road trip.  So far, they have driven 120 miles.  They continue their trip and drive at a constant rate of 50 miles per hour.

    a.  Let $y$ represent the total distance traveled in $x$ hours.  Write an equation to represent the total number of miles driven in $x$ hours.

    b.  Identify the slope and the $y$-intercept.  What do these numbers represent?

    c.  Graph the equation on the given coordinate plane.

    d.  Could any other line represent this situation?  For example, could a line through point $(0, 120)$ with slope 75 represent the total distance the friends drive?  Explain.

    e.  How long would you estimate they had been driving to reach the first 120 miles?  Explain.

    f.  How long will it take them to drive 420 miles?  Explain.