1. (a) Plot the points (−3, −5) and (2, 5) on the following coordinate plane. Draw the line through these points.

(b) Find the slope of the line.

(c) Find the equation for the line.
2. Find the equations for the lines through the given points:

(a) (1, 2) and (3, 8)

(b) (−2, 3) and (1, 9)

(c) (5, −1) and (4, −1)

(d) (2, 4) and (2, 9)
3. In 2001, the population of Kingston was 23,450. In 2003, the population had decreased to 23,174. Assume that the population is decreasing linearly.

(a) Find the equation for the line relating the year to the population of Kingston.

(b) What will the population of Kingston be in 2010?

(c) In what year will the population of Kingston be 20,000?
4. Find the point of intersection of the following two lines:

\[ 3x + y = 7 \]
\[ 2x - 3y = 1 \]

5. Find the point of intersection of the following two lines:

\[ 2x - 4y = 6 \]
\[ 3x - 7y = 8 \]