Name: _____ Date: _____

Day 10

BLM 6.6.1

Practice: Find an Equation for a Line Given Two Points

1. Find the slope of the line that passes through each pair of points.

a) A(2, 3) and B(4, 5)

b) M(0, 6) and N(2, 0)

c) S(8, 7) and T(0, 0)

d) C(3, 4) and D(6, 7)

e) P(5, 1) and Q(4, 5)

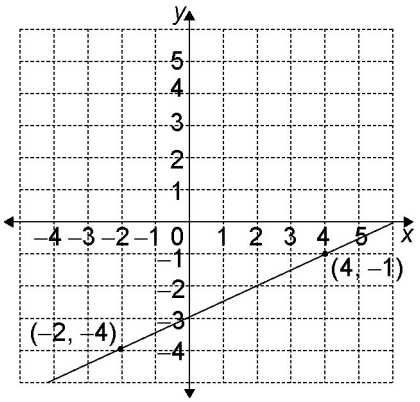
f) E(2, 3) and F(4, 5)

g) V(–1, 1) and W(2, –4)

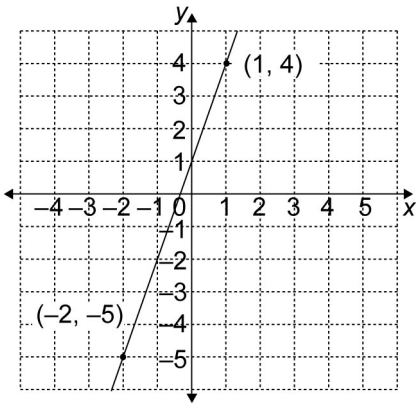
h) J(2, –1) and K(1, –2)

2. Find an equation for each line.

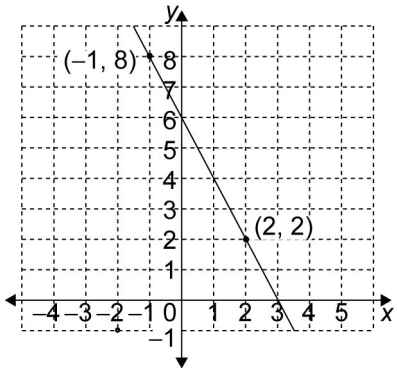
a)



b)



c)



3. Find an equation for the line that passes through each pair of points.

a) C(4, 5) and D(5, 1)

b) J(3, 2) and K(1, 0)

c) G(7, 7) and H(0, 4)

d) S(–3, 1) and T(–2, 7)

e) P(4, 5) and Q(2, 3)

f) M(–3, 3) and N(3, –5)

g) X(0, –1) and Z(5, –4)

h) A(4, –1) and B(–2, –2)

4. A line passes through (3,0) and has a y-intercept of 4.

a) Find the slope of the line.

b) Write an equation for the line.

5. A line passes through the origin and A(4, 6).

a) Find the slope of the line.

b) Write an equation for the line.

Other Word Problems

1. A mutual fund company charges $40 a year to hold the fund and then an additional 3% (.03) of the profits made for that year.
a. Write an equation that could be used to determine how much one would pay to the mutual fund company in a year. Define your variables.
b. If the fund made $2 000 in profits, how much would you pay to the company?

2. A plane is descending to land. After 11 minutes, it is at 10 250 feet. It hits the ground after 15.5 minutes.
a. Create an equation to model this situation. Define your variables.
b. When was the plane at 20 000 feet?

Day 10

Solutions for "Find an Equation for a Line Given Two Points"

BLM 6.6.1 Practice: Find an Equation for a Line Given Two Points

1. **a)** 1 **b)** -3

c) $\frac{7}{8}$ **d)** 1

e) -4 **f)** 1

g) $-\frac{5}{3}$ **h)** 1

2. **a)** $y = \frac{1}{2}x - 3$

b) $y = 3x + 1$

c) $y = -2x + 6$

3. **a)** $y = -4x + 21$ **b)** $y = x - 1$

c) $y = \frac{3}{7}x + 4$ **d)** $y = 6x + 19$

e) $y = x + 1$ **f)** $y = -\frac{4}{3}x - 1$

g) $y = -\frac{3}{5}x - 1$ **h)** $y = \frac{1}{6}x - \frac{5}{3}$

4. **a)** $-\frac{4}{3}$ **b)** $y = -\frac{4}{3}x + 4$

5. **a)** $\frac{3}{2}$ **b)** $y = \frac{3}{2}x$

Solutions to "Other Word Problems"

1a) Let x be profits. Let y be amount you pay. y =0.03x + 40
b) y = $100

2a. Let x be time (hours). Let y be height (feet). y = –2250x + 35 000
b. x = 6.67 minutes