MATH 103 Algebra answers

Let me know in class if you have found an error!

1.
$$y = -2x + 1$$

$$2. \ y = \frac{b}{a}x$$

3.
$$y = 2x - 1$$

4. (a)
$$x = \frac{3}{7}$$

(b)
$$x = -2 \text{ and } x = 1$$

(c)
$$x = 0 \text{ and } x = 1$$

(d)
$$x = 0 \text{ and } x = 1$$

(f)
$$x = 2$$
, $x = -2$, and $x = 0$

(g)
$$x = 0 \text{ and } x = -3$$

(i)
$$x = \sqrt{\frac{1}{3}}$$

5.
$$f(0) = -3$$
, $f(-3) = -9$, $f(x+h) = 2(x+h) - 3$

6.
$$f(0) = 2$$
, $f(-3) = 8$, $f(x+h) = (x+h)^2 + (x+h) + 2$

7.
$$f(0) = -\frac{1}{9}$$
, f is not defined at $x = -3$, $f(x+h) = \frac{1}{(x+h)^2 - 9}$

8.
$$f(0) = -2$$
, $f(-3) = -30$, $f(-4) = -67$