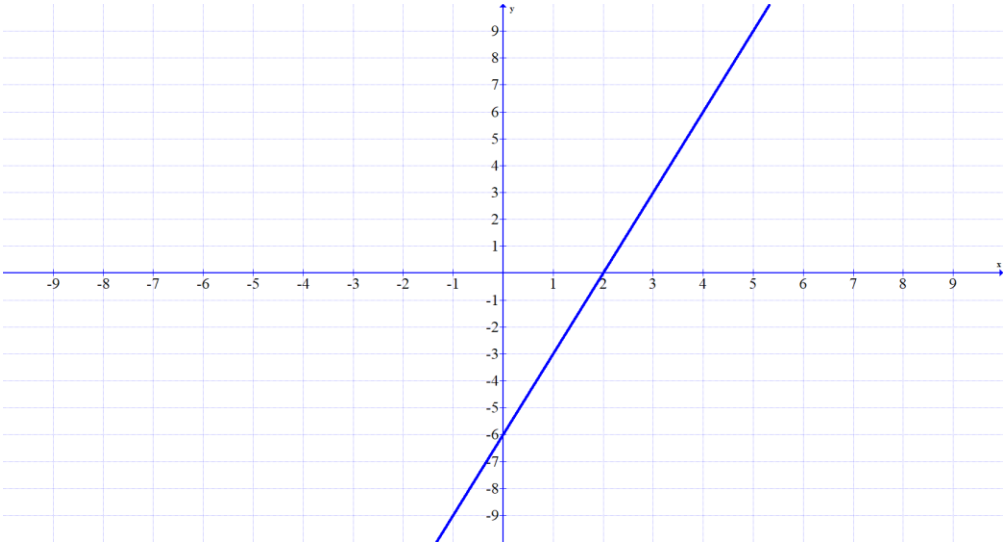
Section 4.1

1a) $m = 3$ 1b) $(0, -6)$ 1c) $(2,0)$

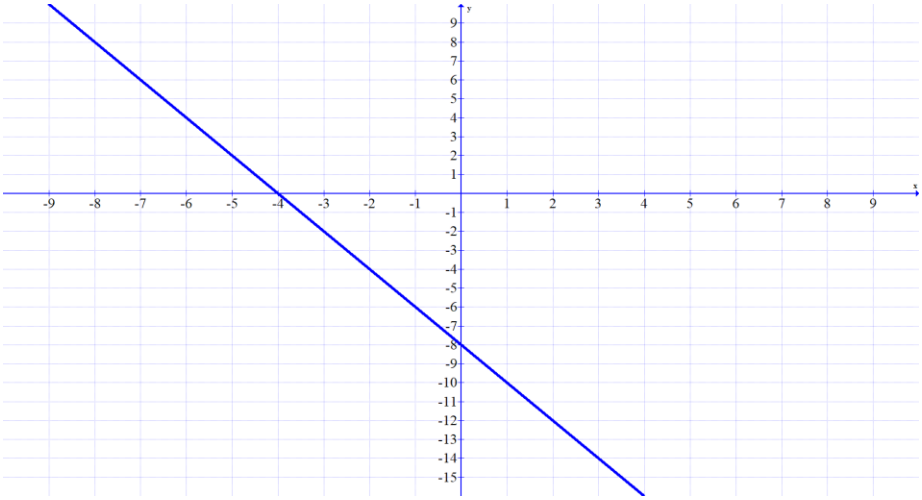
1d)



1e) Increasing $(-\infty, \infty)$ decreasing – never constant – never

3a) $m = -2$ 3b) $(0, -8)$ 3c) $(-4,0)$

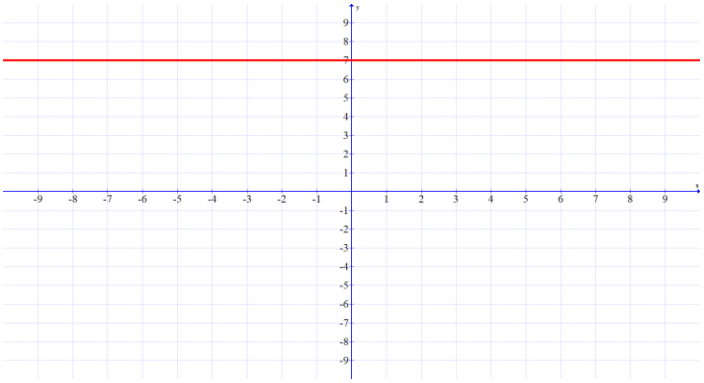
3d)



3e) Increasing - never decreasing – $(-\infty, \infty)$ constant – never

5a) $m = 0$ 5b) $(0,7)$ 5c) $none$

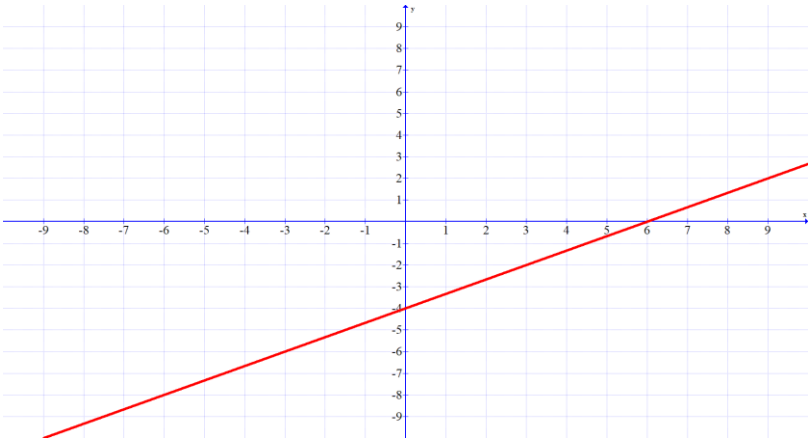
5d)



5e) Increasing – never decreasing – never constant – $(-\infty, \infty)$

7a) $m = \frac{2}{3}$ 7b) $(0, -4)$ 7c) $(6,0)$

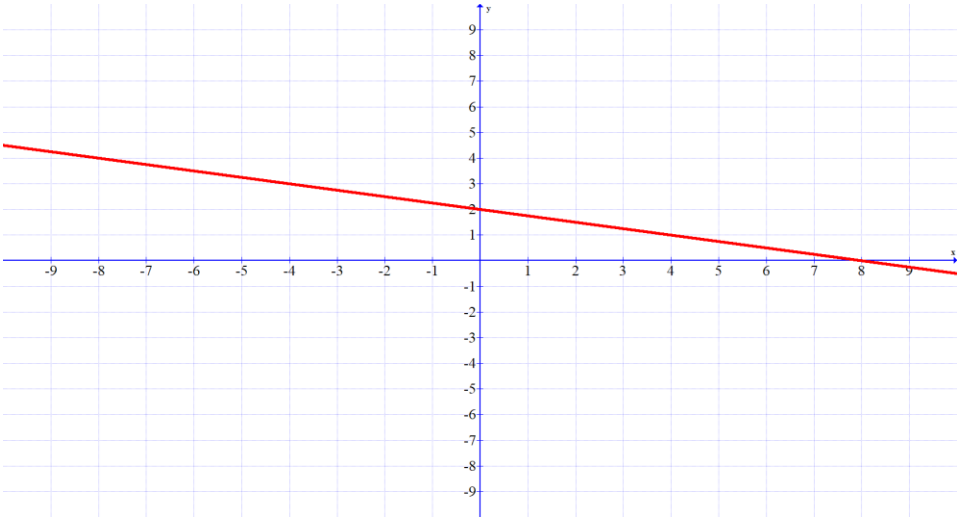
7d)



7e) Increasing $(-\infty, \infty)$ decreasing – never constant – never

9a) $m = \frac{-1}{4}$ 9b) $(0,2)$ 9c) $(8,0)$

9d)

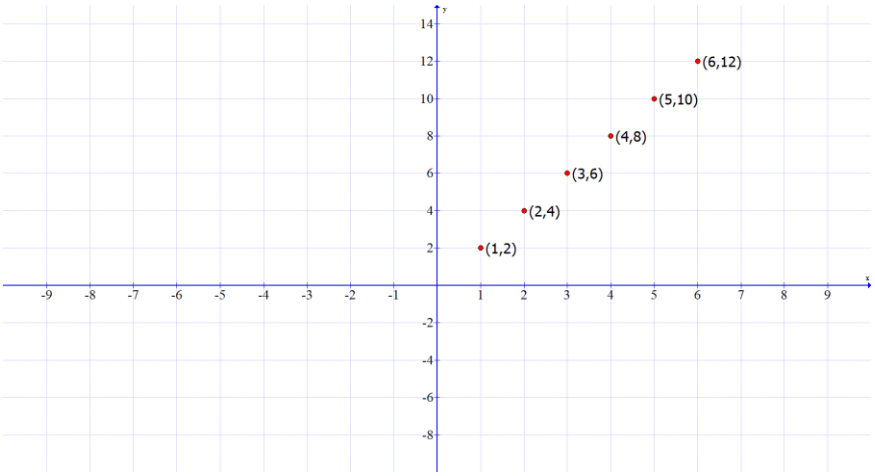


9e) Increasing - never decreasing – $(-\infty, \infty)$ constant – never

11a) $x = 2$ 11b) $x > 2$ 11c) $x = 2$ 11d) $x < 2$

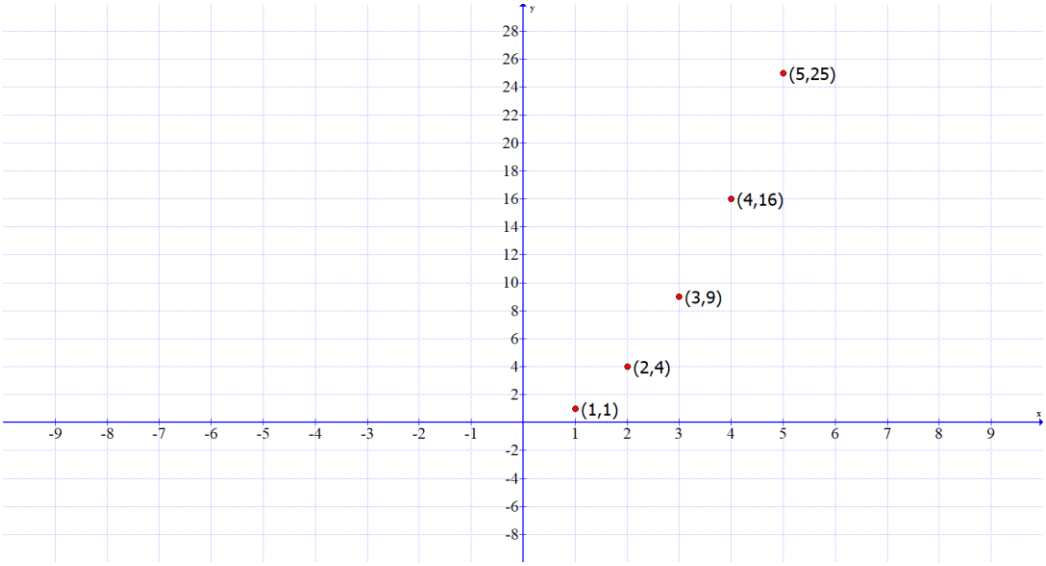
13a) $x = 3$ 13b) $x > 3$ 13c) $x = -7$ 13d) $x > -7$

15a)



15b) data is linear 15c) $f(x) = 2x$

17a)



17b) data is not linear 17c) skip

19a)

19b) data is linear 19c) $f(x) = -5x + 25$

21a) 6 *units* 21b) 4 *units* 21c) *supply exceeds demand*

21d) \$7.50 21e) 5 *units* 21f) 5 *units*

23a) 5 *units* 23b) 13 *units* 23c) demand exceeds supply

23d) \$10 23e) 10 *units* 23f) 10 *units*

25a) $\$190$ 25b) $\$240$ 25c) $revenue\ exceeds\ cost$

25d) $profit\ \$50$ 25e) $20\ units$ 25f) $\$160$

25g) $\$160$ 25h) $\$0$

27a) $\$900$ 27b) $\$700$ 27c) $loss$

27d) $\$200\ loss\ \ or\ \ \$-200\ profit$ 27e) $200\ units$

27f) $\$1400$ 27g) $\$1400$ 27h) $\$0$

29a) $C(m) = 0.25m + 25$ 29b) $\$50$ 29c) $200\ miles$

31a) $C(m) = 0.50m + 20$ 31b) $\$60$ 31c) $30\ miles$