

3.2.3

Hwk

3-94)

$$a) \begin{array}{r} 3x-7=3x+1 \\ +7 \quad +7 \\ \hline \end{array}$$

$$3x = 3x + 8$$

no solution

$$b) \begin{array}{r} -2x-5=-4x+2 \\ +5 \quad +5 \\ \hline \end{array}$$

$$-2x = -4x + 7$$

$$+4x \quad +4x$$

$$\begin{array}{r} 2x = 7 \\ \hline 2 \quad 2 \end{array}$$

$$x = 3.5$$

$$c) 2+3x = x+2+2x$$

$$2+3x = 2+3x$$

Any number

$$d) -(x-2) = x+2$$

$$-x+2 = x+2$$

$$\begin{array}{r} -2 \quad -2 \\ \hline \end{array}$$

$$-x = x$$

$x=0$ is only solution

3-95)

a) $30 - 2x$ for $x = -6$

$$30 - 2(-6)$$

$$30 - (-12)$$

$$30 + 12$$

$$42$$

b) $x^2 + 2x$ for $x = (-3)$

$$(-3)^2 + 2(-3)$$

$$9 + -6$$

$$3$$

c) $-\frac{1}{2}x + 9$ for $x = (-6)$

$$-\frac{1}{2}(-6) + 9$$

$$-\frac{6}{2} + 9$$

$$3 + 9$$

$$12$$

d) \sqrt{k} for $k = 9$

$$\sqrt{9}$$

$$3$$

3-96) Let x represent the width of the rectangle.

$$2x+3$$



$$2x+3$$

$$2x + 2(2x+3) = 78$$

$$2x + 4x + 6 = 78$$

$$6x + 6 = 78$$

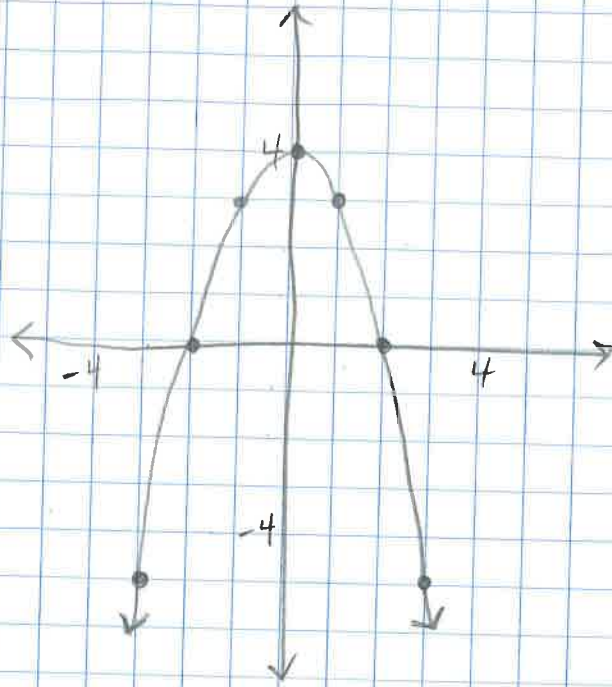
width is 12cm

Length $2x+3$
 $2 \cdot 12 + 3 = 27\text{cm}$

$$\frac{6x}{6} = \frac{72}{6} \quad x = 12\text{cm}$$

$$3-97) y = 4 - x^2$$

x	y
-3	-5
-2	0
-1	3
0	4
1	3
2	0
3	-5



b) The graph is a parabola opening downward.

3-98)

$$a) \frac{5}{4} \div \frac{7}{16} = \frac{20}{16} \div \frac{7}{16} = 20 \div 7 = \frac{20}{7} = 2\frac{6}{7}$$

$$b) -\frac{10}{13} \cdot \frac{5}{11} = -\frac{50}{143}$$

$$c) \frac{9}{11} \div \left(-\frac{20}{21}\right) = \frac{9}{11} \cdot -\frac{21}{20} = -\frac{189}{220}$$

$$d) -\frac{8}{3} \div \left(-\frac{5}{18}\right) = -\frac{8}{3} \cdot -\frac{18}{5} = \frac{144}{15} = 9\frac{3}{5}$$