

Calculator allowed

Assign #8

New

Book Pg 6: 1-7 odd

1. $5 \times \frac{4+7}{6}$ (in calc: $5 * (4+7) / 6$)

$= \boxed{9.17}$

3. $(52 \times 4)^3 + \frac{76}{6} = \boxed{8,998,924.67}$

5. $112 - 2\{16 + 2[14 - 2(7+1)]\} - 4^2 = \boxed{72}$

7. $(1.12 \times 10^4)(3.65 \times 10^{-3}) = \boxed{40.88}$

Packet

1. $y = -0.2x^2 + 3x + 32$

\boxed{b}

2. $y = 10x\sqrt{400-x^2}$

\boxed{c}

3. $y = x^2 + x - 2$

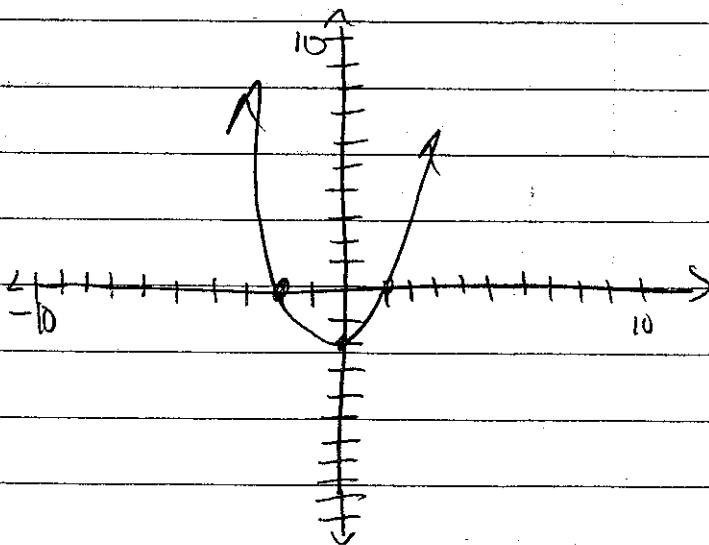
x-int: $(-2, 0)$

$(1, 0)$

y-int: $(0, -2)$

$y = 0^2 + 0 - 2$

$y = -2$



4.

$$y = x\sqrt{x+6}$$

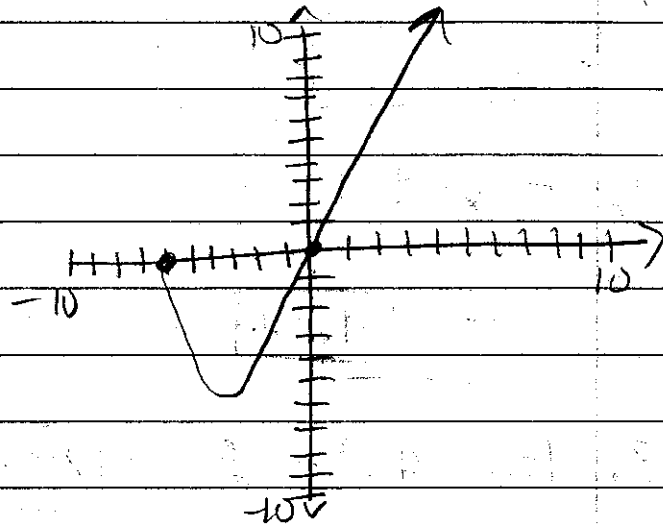
$$x\text{-int: } (-6, 0)$$

$$(0, 0)$$

$$y\text{-int: } (0, 0)$$

$$y = 0\sqrt{0+6}$$

$$y = 0$$

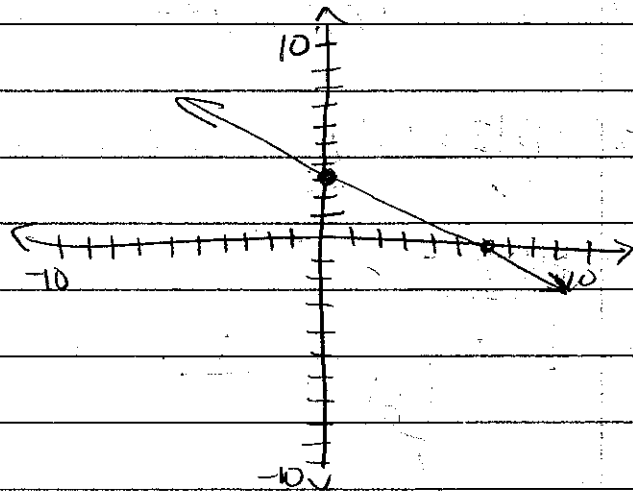


5.

$$y = 3 - \frac{1}{2}x$$

$$x\text{-int: } (6, 0)$$

$$y\text{-int: } (0, 3)$$



6.

$$y = 100x\sqrt{25-x}$$

$$x\text{-int: } (0, 0)$$

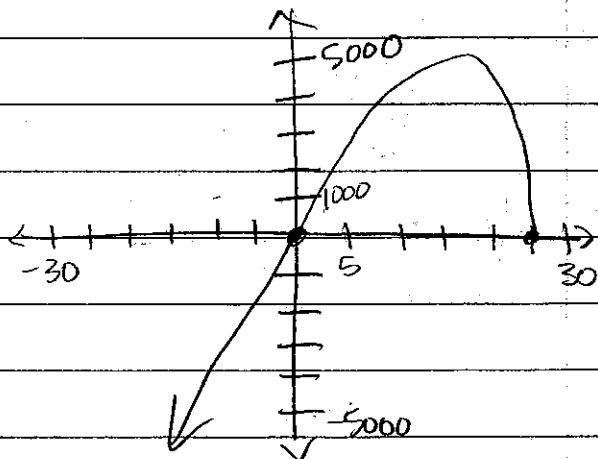
$$(25, 0)$$

$$y\text{-int: } (0, 0)$$

$$y = 100(0)\sqrt{25-0}$$

$$y = 0\sqrt{25}$$

$$y = 0$$



Assign 8 cont

Review

$$7. \left(-8\frac{1}{3}\right) \left(2\frac{2}{5}\right) = \left(\frac{-24}{3}\right) \left(\frac{12}{5}\right) = \boxed{-20}$$

$$8. \frac{7}{7} |3x+5| = \frac{35}{7}$$

$$|3x+5| = 5$$

$$\begin{array}{r} 3x+5=5 \\ -5 \quad -5 \\ \hline 3x=0 \\ \frac{3}{3} \quad \frac{3}{3} \\ \hline x=0 \end{array}$$

$$\begin{array}{r} 3x+5=-5 \\ -5 \quad -5 \\ \hline 3x=-10 \\ \frac{3}{3} \quad \frac{3}{3} \\ \hline x=-\frac{10}{3} \end{array}$$

$$\boxed{x=0, -\frac{10}{3}}$$

$$9. |x+6| = 13$$

$$\begin{array}{r} x+6=13 \\ -6 \quad -6 \\ \hline x=7 \end{array}$$

$$\begin{array}{r} x+6=-13 \\ -6 \quad -6 \\ \hline x=-19 \end{array}$$

$$\boxed{x=7}$$

$$\boxed{x=-19}$$

$$\boxed{x=7, -19}$$

$$10. |2y-1| + 4 = 13$$

$$|2y-1| = 9$$

$$\begin{array}{r} 2y-1=9 \\ +1 \quad +1 \\ \hline 2y=10 \\ \frac{2}{2} \quad \frac{2}{2} \\ \hline y=5 \end{array}$$

$$\begin{array}{r} 2y-1=-9 \\ +1 \quad +1 \\ \hline 2y=-8 \\ \frac{2}{2} \quad \frac{2}{2} \\ \hline y=-4 \end{array}$$

$$\boxed{y=5, -4}$$

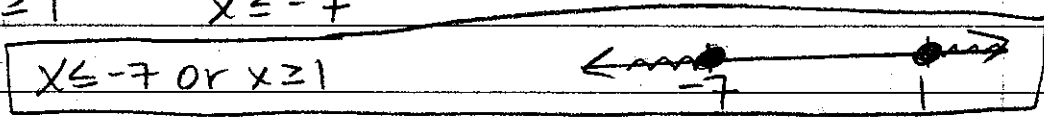
$$11. |x+7| > -2$$

$$\boxed{\mathbb{R}, \text{ all Real \#s}}$$

12. $|x+3| \geq 4$

$$\begin{array}{r} x+3 \geq 4 \\ -3 \quad -3 \end{array} \quad \begin{array}{r} x+3 \leq -4 \\ -3 \quad -3 \end{array}$$

$$x \geq 1 \quad x \leq -7$$



13. $|3+2x| < 7$

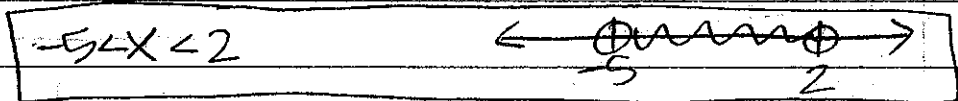
$$\begin{array}{r} 3+2x < 7 \\ -3 \quad -3 \end{array} \quad \begin{array}{r} 3+2x > -7 \\ -3 \quad -3 \end{array}$$

$$\frac{2x}{2} < \frac{4}{2}$$

$$\frac{2x+7-7}{2} < \frac{-10}{2}$$

$$x < 2$$

$$x > -5$$



14. $\frac{1}{x} + 3y = -5$

not linear, divide by x

15. $2y = 3x - 8$

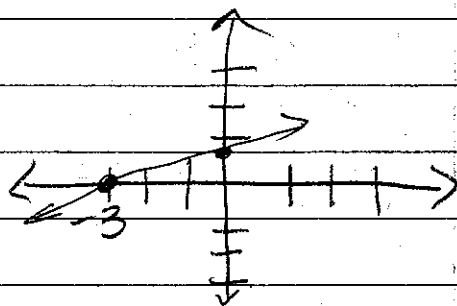
linear

16. $4y - x = 3$

x-int: $(-3, 0)$

$$-x = 3$$

y-int: $(0, \frac{3}{4})$

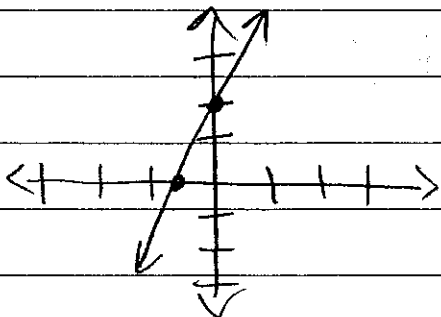


17. $y = 4x + 2$

x-int: $(-\frac{1}{2}, 0)$

$$-\frac{2}{4} = \frac{-1}{2}$$

y-int: $(0, 2)$



Assign 8
cont

$$18. (-1, 0), (3, -2) \quad m = \frac{-2-0}{3-(-1)} = \frac{-2}{4} = \boxed{-\frac{1}{2} = m}$$

$$19. \left(\frac{5}{2}, 3\right), (1, -9) \quad m = \frac{-9-3}{1-\frac{5}{2}} = \frac{-12}{\frac{2}{2}-\frac{5}{2}} = \frac{-12}{-\frac{3}{2}} = \frac{-12}{-1} \cdot \frac{2}{3} = \boxed{8 = m}$$

Book pg 56: 14, 20, 22, 38, 57

$$14. (3+7)^2 - 16 \div 2$$

$$= (10)^2 - 16 \div 2$$

$$= 100 - 16 \div 2$$

$$= 100 - 8$$

$$= \boxed{92}$$

$$20. 42 \div 8 = \boxed{5.25; Q, R}$$

$$22. 2^3 + 10 = 8 + 10 = \boxed{18; N, W, Z, Q, R}$$

$$38. 4y - \frac{1}{10} = 3y + \frac{4}{5}$$

$$-3y + \frac{1}{10} \quad -3y + \frac{1}{10}$$

$$y = \frac{8}{10} + \frac{1}{10}$$

$$\boxed{y = \frac{9}{10}}$$

$$57. 18 - 2(y+6) < 76$$

$$18 - 2y - 12 < 76$$

$$-2y + 6 < 76$$

$$\frac{-2y}{-2} < \frac{70}{-2} \quad \boxed{y > -35}$$

pg 92

Book pg 91: 36, 40, 42

36. X-int: -4, y-int = 4

(-4, 0) (0, 4)

$$m = \frac{4-0}{0-(-4)} = \frac{4}{4} = 1$$

$$y = x + 4$$

40. passes through (-2, 0), perpendicular to $y = -3x + 7$

$$m = \frac{1}{3}$$

$$y = \frac{1}{3}x + b$$

$$0 = \frac{1}{3}(-2) + b$$

$$0 = -\frac{2}{3} + b$$

$$+\frac{2}{3} \quad +\frac{2}{3}$$

$$b = \frac{2}{3}$$

$$y = \frac{1}{3}x + \frac{2}{3}$$

42. passes through (6, -5), perpendicular to $3x - \frac{1}{5}y = 3$

$$m = -\frac{1}{15}$$

$$-5(-\frac{1}{5}y) = (-3x + 3) - 5$$

$$y = -\frac{1}{15}x + b$$

$$-5 = -\frac{1}{15}(6) + b$$

$$-5 = -\frac{6}{15} + b$$

$$+\frac{6}{15} \quad +\frac{6}{15}$$

$$-\frac{75}{15} + \frac{6}{15} = b$$

$$b = -\frac{69}{15}$$

$$b = -\frac{23}{5}$$

$$y = 15x - 15$$

$$y = -\frac{1}{15}x - \frac{23}{5}$$