

Review 15

$$\textcircled{1} \frac{f^7}{f^3 \cdot f^4} = \frac{f^7}{f^{3+4}} = \frac{f^7}{f^7} = \boxed{1}$$

$$\textcircled{2} \frac{9^4 \cdot 3^8}{9^2 \cdot 3} = \frac{9^4}{9^2} \cdot \frac{3^8}{3^1} = 9^{4-2} \cdot 3^{8-1} = \boxed{9^2 \cdot 3^7}$$

$$\textcircled{3} 297^\circ + 42^\circ + 12^\circ$$
$$1 + 1 + 1 = \boxed{3}$$

$$\textcircled{4} (4^5)^d = 4^{35} \quad \begin{array}{l} 5 \cdot d = 35 \\ \boxed{d = 7} \end{array}$$

$$\textcircled{5} (5x^2 + 2x - 11) - (3x^2 + 8x - 7)$$
$$5x^2 + 2x - 11 - 3x^2 - 8x + 7$$
$$2x^2 - 6x - 4$$

$\textcircled{6}$ First Term, To get the next term, use the previous term & do some math

$$b_1 = 1.25$$

$$b_{n+1} = b_n + .79$$

$$\textcircled{7} \frac{W_1 R_1}{R_1} = \frac{W_2 R_2}{R_1}$$

$$W_1 = \frac{W_2 R_2}{R_1}$$

⑧ Put equation into calculator

x	y
1	5
2	6
3	7
4	6

Highest Point

Max Value = 7

⑨ The second map.
Each input has only 1 output.

⑩ The dollar value of the stock is increasing & decreasing over a period of 500 days.

$$\textcircled{11} 3(2y+3) - 2(4y+5)$$
$$6y+9-8y-10$$

-2y-1

(12) (1, 3) - Every input has one output.

If you add (3, -1) the input 3 would then have 2 outputs.

(13)

	$2x^2$	$-4x$	5
x	$2x^3$	$-4x^2$	$5x$
-6	$-12x^2$	$+24x$	-30

$$2x^3 - 16x^2 + 29x - 30$$

(14) x = hours cleaning
 y = hours selling

$$\begin{cases} x + y \leq 41 \\ 5x + 8y \geq 254 \end{cases} \leftarrow \text{system}$$

For Graphing

$$\begin{aligned} x + y &\leq 41 \\ -x & \quad -x \text{ graph} \\ \hline y &\leq -x + 41 \end{aligned}$$

$$\begin{aligned} 5x + 8y &\geq 254 \\ -5x & \quad -5x \\ \hline 8y &\geq -5x + 254 \end{aligned}$$

$$\frac{8y}{8} \geq \frac{-5x + 254}{8}$$

$$y \geq -\frac{5}{8}x + 31.75$$

Sorry so tough

(15) x = senior tickets
 y = child tickets

$$\begin{cases} 3x + 1y = 38 \\ 3x + 2y = 52 \end{cases}$$

solving by elimination

$$\begin{aligned} -3x - 1y &= -38 \\ 3x + 2y &= 52 \\ \hline y &= 14 \end{aligned}$$

$$y = 14$$

$$\boxed{8, 14}$$

$$3x + 1(14) = 38$$

$$\begin{aligned} 3x &= 24 \\ \frac{3x}{3} &= \frac{24}{3} \\ x &= 8 \end{aligned}$$

For Graphing

$$\begin{aligned} 3x + 1y &= 38 \\ -3x & \quad -3x \\ \hline y &= -3x + 38 \end{aligned}$$

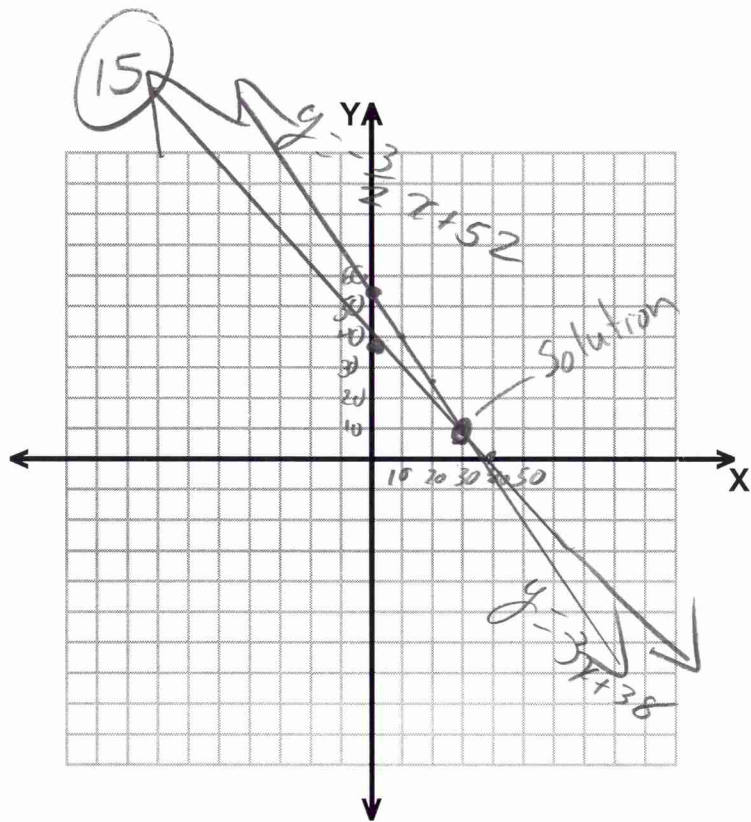
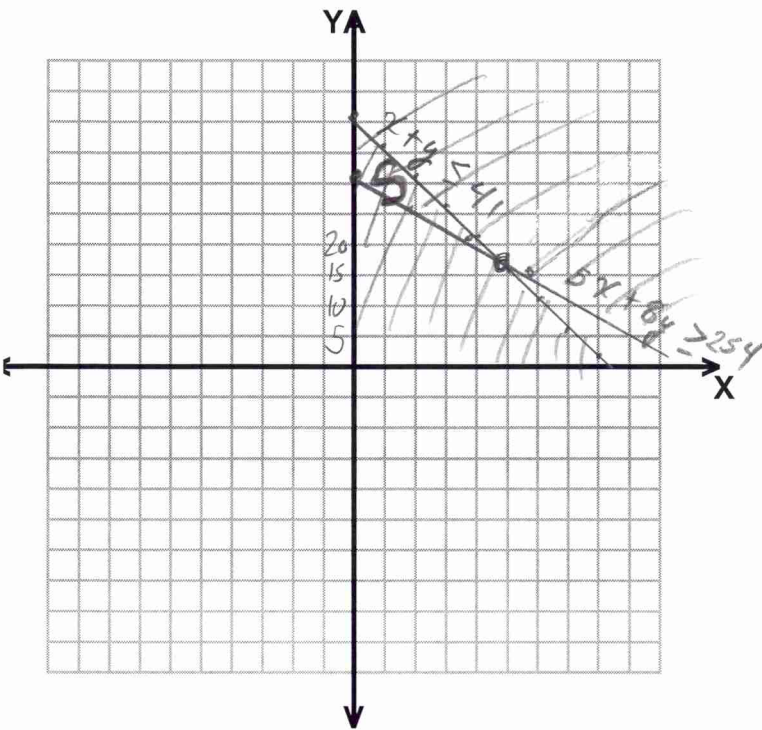
$$\begin{aligned} 3x + 2y &= 52 \\ -3x & \quad -3x \\ \hline 2y &= -3x + 52 \end{aligned}$$

$$\frac{2y}{2} = \frac{-3x + 52}{2}$$

$$y = -\frac{3}{2}x + 26$$

(16) See Graph

14



16

