

Units 7, 8, 9 Constructed Response Practice

1.) A.)

	h	d
x_1	0	75
x_2	1	100
	2	125
	3	150

+25
+25
+25

$$d = 25h + 75$$

$$y = mx + b$$

$$b = 75 \quad d = mh + b$$

$$m = \frac{100 - 75}{1 - 0} = \frac{25}{1} = 25$$

B.)

~~$$g = 50 - \frac{1}{10}(100) = 40$$

$$g = 50 - \frac{1}{10}(200) = 30$$

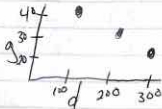
$$g = 50 - \frac{1}{10}(300) = 20$$~~

$$g = 50 - \frac{1}{10}(100) = 40$$

$$g = 50 - \frac{1}{10}(200) = 30$$

$$g = 50 - \frac{1}{10}(300) = 20$$

100	40
200	30
300	20



D.) The farther you drive, the less gas you have.

2) A.)

$$1500 = 10w + 100$$

$$1500 - 100 = 10w$$

$$\frac{1400}{10} = \frac{10w}{10}$$

$$w = 140 \text{ weeks}$$

B.) $10w + 100 = 15w + 50$

$$10w - 15w = 50 - 100$$

$$\frac{-5w}{5} = \frac{-50}{5}$$

$$w = 4$$

C.)

$$m = 10w + 100$$

$$m = 15w + 80$$

$$m = 10(4) + 100$$

$$m = 15(4) + 80$$

$$m = 40 + 100$$

$$m = 60 + 80$$

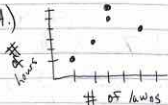
$$m = 140$$

$$m = 140$$

140 miles

x	Laws	5	3	2	3	1
y	hours	4	5	3	6	1

3.) A.)



B.) Domain: 5, 3, 2, 3, 1

Range: 4, 5, 3, 6, 1

C.) Not a Function. The domain has 2 of the same number.
OR Vertical line test $\rightarrow$ goes through 2 points at once.

4.) A.) $5x + 10y \leq 80$

B.) $x \rightarrow$ CD's $y \rightarrow$ T-shirts

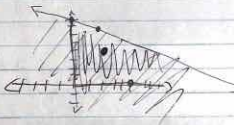
C.) $5x + 10y \leq 80$

$$\frac{10y}{10} \leq \frac{-5x + 80}{10} \quad \frac{80}{10}$$

$$y \leq -\frac{1}{2}x + 8$$

$$m = -\frac{1}{2} \quad b = 8$$

Solid/under



D.) 2 CD's 5 T-shirts
5 CD's 0 T-shirts

(OR)

Answers can vary. All in shaded region