

am Questions (Use calculator)

Name: _____
 Date: _____
 Pt: _____

A fish tank has a volume of 520 in³. It is emptied at a constant rate of 10 cubic inches every minute. Which equation represents the volume v , after t , time in minutes?

$v = 10t - 520$
 $v = 10t + 520$
 $v = 520 - 10t$ (circled)
 $v = -520 - 10t$

2. The school can only seat 50 students in every bus. If the school is planning on taking 360 students on a field trip to the Polynesian Cultural Center, how many school buses will they need?

$\frac{360}{50} = 7.2$
 can't take .2 of a bus so **8**

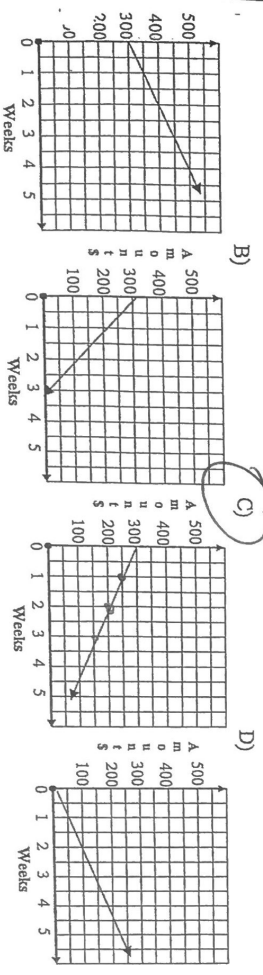
The state department of transportation recently filled the road salt storage building on the highway near your house with 2400 tons of salt. A truck can hold 12 tons of road salt in one load. You can represent this relationship with the equation $y = 2400 - 12x$, where y is the amount of road salt left in the storage building and x is the number of truck loads of salt.

X	Y = 2400 - 12X	Y
0	2400 - 12(0)	2400
15	2400 - 12(15)	2220
30	2400 - 12(30)	2040
45	2400 - 12(45)	1860

4. An airplane is at an altitude of 1,200 feet. It begins to ascend at a rate of 925 feet per minute. How many minutes will it take the plane to reach 16,000 feet?

$y = 1200 + 925x$
 $16000 = 1200 + 925x$
 $-1200 - 1200$
 $14800 = 925x$
 $925 \quad 925$
 $16 = x$
16 minutes

Jasmine has \$300 in her bank account and each week she spends \$50. Which graph represents the relationship between the amount remaining in the bank, A , after weeks, w , represented by the equation $300 - 50w = A$?



STARTED w/ 300 (y-int)
 spends \$50 each week (-50 slope)

6. Sharnae has \$375 in the bank and each week he withdraws \$25 out of his account. After how many weeks will he have only \$100 left in the bank?

$y = -25x + 375$
 $100 = -25x + 375$
 $-375 - 375$
 $-475 = -25x$

8. Julie is a waitress and earns \$5 for every hour she works. If h is the number of hours she works and p is her total pay, which table represents this relationship: $5h = p$?

Hours	Pay \$	Hours	Pay \$	Hours	Pay \$	Hours	Pay \$
0	\$0	0	\$5	0	\$5	0	\$0
1	\$5	1	\$10	1	\$15	1	\$10
2	\$10	2	\$15	2	\$25	2	\$20
3	\$15	3	\$20	3	\$35	3	\$30

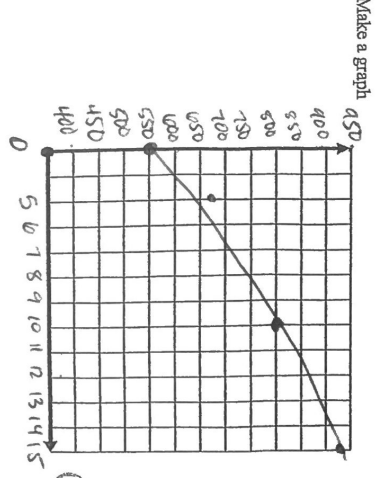
9. Hannah types at a rate of 50 words per minute. At this rate how many minutes will it take her to type a 200 word paper?

$y = 50x$
 $200 = 50x$
 $50 \quad 50$
 $4 = x$

10. So far the school has already raised \$350 for prom. Each senior is required to sell \$25 in chocolate bars to help cover the additional costs of prom. The equation that represents this situation is $A = 350 + 25s$, where s is the number of seniors selling chocolate bars and A is the total amount raised for prom. (2 pts)

A) Fill out the table

S	A = 350 + 25s	A
0	350 + 25(0)	350
5	350 + 25(5)	475
10	350 + 25(10)	600
15	350 + 25(15)	725



11. Fred takes \$20 to the arcade and it costs \$2 for every game he plays. Fred needs to leave the arcade with \$5.00 to pay for lunch, what is the most number of games he can play?

$$5 = 20 - 2x$$

$$-20 \quad -20$$

$$\frac{-15}{-2} = \frac{-2x}{-2}$$

$$7.5 = x$$

1 game

12. John swims 34 miles every week. Which equation best represents the total number of miles, m , John swam after w weeks?

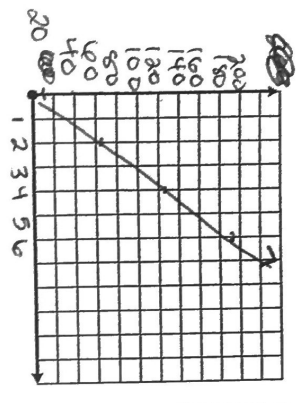
- A) $m = 34w$
- B) $w = 34m$
- C) $m = 34 + w$
- D) $w = 34 + m$

13. Patty has already driven 160 miles on her trip to her grandparents' house. For every hour she travels she drives an additional 55 miles. Which equation represents the relationship between the total miles driven, m , and the number of hours, h .

- A) $M = 160 + 55h$
- B) $H = 160 + 55m$
- C) $M = 160h + 55$
- D) $H = 160m + 55$

14. At Rarrington High school they can fit 32 students in each classroom. Write an equation for the number of students s , and the number of classrooms, c , is $S = 32c$. Use the given table to make a graph.

c	S
0	0
2	64
4	128
6	192



15. Mr. Williams is purchasing a table and chairs for \$1650, including tax and interest. He will pay for the furniture with bi-monthly payments of \$95. Write an equation describing a , the amount of the remaining balance after, p , number of payments.

$A = 1650 - 95p$

16. The cost to rent a construction crane for a day is \$750 plus \$250 per hour of use. What is the maximum number of hours the crane can be used during day? If the rental cost is not to exceed \$2500?

$$750 + 250h \leq 2500$$

$$\frac{-750}{250} \quad \frac{-750}{250}$$

$$250h \leq 1750$$

$$\frac{250h}{250} \leq \frac{1750}{250}$$

$$h \leq 7$$

- A) 2.5 hours
- B) 3.7 hours
- C) 7.0 hours
- D) 13.0 hours

$T = 5P$

17. During the summer you can find 5 tomatoes on every tomato plant in the garden. Write an equation if T represents the total number of tomatoes and P is the number of tomato plants in the garden.

18

Train Problem

X (car #)	Y (# people)
1	150
2	175
3	200

Find function rule

Linear: $y = mx + b$

$m = \frac{25}{1} = 25$

y-int:

$$\frac{x}{y}$$

$$\frac{1}{150} \quad \frac{2}{175}$$

$$\frac{1}{150} - \frac{2}{175} = -25$$

$$1(150) - 2(175) = -25$$

$150 - 25 = 125$

$y = 25x + 125$