

Names Li Taryn Nicole

Circle which set or sets each number belongs to.

| | | | | | |
|-------------------|----------|---------|----------|------------|------|
| a) 10 | Counting | Integer | Rational | Irrational | Real |
| b) $-\frac{8}{3}$ | Counting | Integer | Rational | Irrational | Real |

Explain your answers

$\frac{10}{1}$ 10 - you can count to ten
 - integer, it's on the number line and it's a whole
 - rational, it can be turned into a fraction w/ a denominator that's a non zero

$\frac{10}{10} = \frac{10}{10}$

- irrational, not because it can be written as a fraction where the denominator is not a zero.
 - real - it can be represented ^{as an integer} on the number line

$-\frac{8}{3}$ - can't count to $-\frac{8}{3}$, not a whole number
 - not an integer
 - rational - can be graphed on the number line.
 - irrational - see above
 - real - see rational

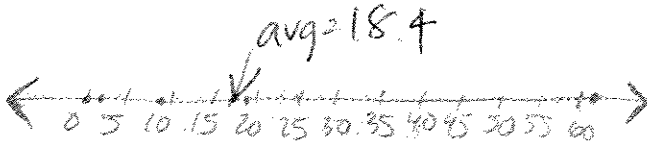
Names Marino Sean Necker

The number of low-carbohydrate (low-carb) ice cream products in the years 2000, 2001, 2002, 2003, and 2004 is 0, 2, 9, 19, and 62, respectively. Let n be the number of low-carb ice cream products.

- a) Use points on a number line to describe the given values of n . Find the average of the values and indicate it on the number line.

$$\begin{array}{r} 2 \\ 62 \\ 19 \\ 9 \\ + 2 \\ \hline 92 \\ 5 \overline{) 92} \\ \underline{51} \\ 41 \\ \underline{40} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

Average 18.4



- b) Did the number of low-carb ice cream products increase, decrease, stay approximately constant, or none of these between 2000 and 2004, inclusive? Explain.

Increase, because of profit is increasing over time

In your explanation, explain what numbers you are looking at in determining your answer.

2000 to 2004

0, 2, 9, 19, 62

→ numbers are getting bigger

- c) Did the annual *increases* in the number of low-carb ice cream products increase, decrease, stay constant, or none of these between 2000 and 2004, inclusive? Explain.

| | |
|--------------------------------|-------------|
| From 2000 to 2001 it increased | 2 products |
| From 2001 to 2002 it increased | 7 products |
| From 2002 to 2003 it increased | 10 products |
| From 2003 to 2004 it increased | 43 products |

So this means that the increases are increasing

In your explanation, explain what numbers you are looking at in determining your answer.

We are looking at the increase between each year between 2000 & 2004

Names David M., Holly Stewart, Daniel Contreras

Let x be the average number of cars sold per week by a car dealership at t years since 1990. What does the ordered pair $(15, 25)$ represent? Write your answer in a complete sentence.

(Independent, Dependent)

$$\frac{1}{2}(-2)$$

In 2005, the average number of cars sold per week is 25.

Explain your answer

Add 15 (x, the independent variable) to 1990 to get the year that properly expresses the dependent variable (25) for the average # of cars sold.

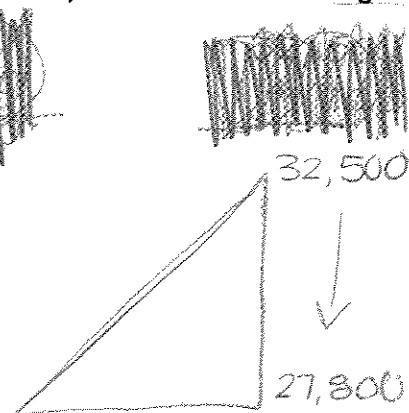


Names Carolyn Gibson, David, [initials]

An airplane drops from 32,500 feet to 27,800 feet. Find the change in altitude. Show all work for credit.

~~32,500~~

$$\begin{array}{r} 27,800 \\ - 32,500 \\ \hline - 4,700 \end{array}$$



you subtract 32,500 From 27,800 to find the change in altitude, you want to have a negative number. So start from end to the beginning.

What are the key words and concepts in this problem?

The key word is the change in altitude

$$\text{change in qty} = \text{end amt} - \text{beg amt}$$

Names Layla Pejook ~~Ally~~ Logan

Evaluate the following expressions for $a = 2, b = -5, c = -4,$ and $d = 10.$ Show all work for credit.

a) $ac + c \div a$

b) $b^2 - 4ac$

c) $\frac{-b-c^2}{2a}$

d) $2c^2 - 5c + 3$

$$2(-4) + (-4) \div 2$$

$$\downarrow$$

$$-8 + (-2)$$

$$= \boxed{-10}$$

$$-5^2 - 4(2)(-4)$$

$$-25 + 32$$

$$= \boxed{7}$$

$$\frac{-(-5) - (-4)^2}{2(2)}$$

$$\frac{5 - 16}{4}$$

$$= \boxed{-11/4}$$

$$2(-4)^2 - 5(-4) + 3$$

$$2(16) + (20) + 3$$

$$32 + 23$$

$$= \boxed{55}$$

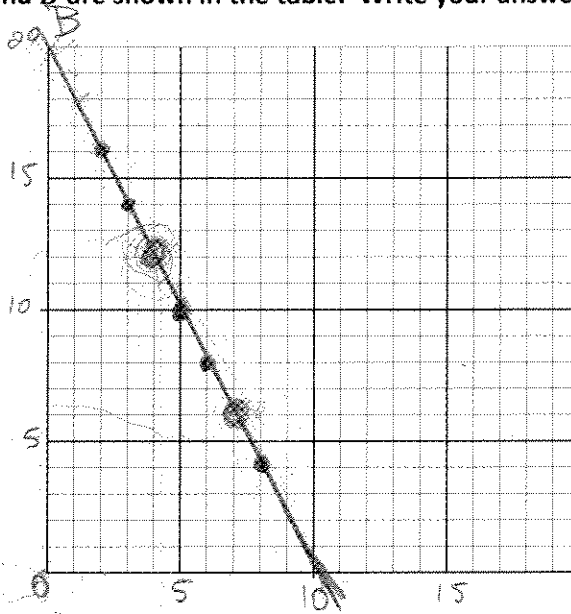
P ()
 E 0²³⁴
 MD x ÷
 AS + -

L-R

Names Matthew Camou, Harold Westrich

A person is laid off from work. Let B be the balance (in thousands of dollars) in her checking account at t months since she was laid off. Some pairs of t and B are shown in the table. Write your answers in complete sentences.

| t (months) | B (thousands of dollars) |
|--------------|----------------------------|
| 2 | 16 |
| 3 | 14 |
| 5 | 10 |
| 6 | 8 |
| 8 | 4 |



a) Create a scattergram of the data. Then draw a linear model.

b) What was the balance 4 months after the person was laid off? Explain how you found the answer.

2 thousand dollars.

Use linear model to project answer visually

c) When was the balance \$6 thousand? Explain how you found the answer.

7 month after person was laid off.

Use linear model to project answer visually

d) What is the B -intercept? What does it mean in this situation? Explain how you found the answer.

$(0, 20)$ $\$20k$ The day she got laid off she/he had \$20k in checking account

used linear model to project answer.

e) What is the t -intercept? What does it mean in this situation? Explain how you found the answer.

$(10, 0)$ By 10th month of no work she/he will have 0\$ dollars in her checking account.

Names Cynthia Perez, Andrew Lopez

For the following problems, let x be a number. Translate the English phrase into a mathematical expression. Then evaluate the expression for $x = -4$.

- a) The number minus the quotient of -12 and the number. $\frac{-12}{-4} = 3$

$$x - \frac{-12}{x} \quad -4 - \frac{-12}{-4} \quad -4 - 3 = \boxed{-7}$$

Explain how the phrase is different from "Subtract the number from the quotient of -12 and the number."

$$\frac{-12}{x} - x \quad \frac{-12}{-4} - x \quad 3 + +4 = \boxed{7}$$

This phrase has a positive #.

- b) 7 more than the product of -2 and the number

$$7 + -2 \cdot x \quad 7 + (-2)(x)$$

$$7 + -2x \quad 7 + (-2)(-4)$$

$$7 + -2(-4) \quad 7 + 8 = \boxed{15}$$

$$7 + 8 = \boxed{15}$$

Names Ricardo Narvaez, Kelly Madura

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

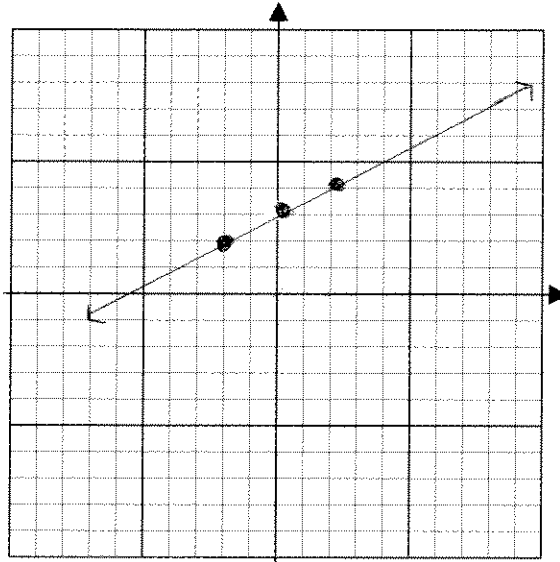
a) y-intercept as an ordered pair:

(0, 3)

b) Make a table with at least 3 values

| x | y |
|----|---|
| -2 | 2 |
| 0 | 3 |
| 2 | 4 |

c) Graph



- The y-intercept is (0, 3) because $\frac{1}{2}$ multiplied by 0 is zero plus three is equal to three.
- We plugged in x-values for the equation and solved. The y-values are the answers when x is substituted. 😊