

Third Six Weeks Test Review

Name: _____

Parent Signature: _____

1. How do I calculate net worth?

Subtract the total liabilities from the total assets

2. What is the net worth of the family below:

	Assets	Liabilities
House	\$100,000	\$18,000
Autos	\$22,000	\$0
Furniture	\$25,000	\$450
Credit cards		\$59
Bank accounts	\$20,000	
Retirement accounts	\$47,000	
Cash	\$50	
Value of jewelry and art	\$775	\$0
TOTAL	\$214,825	\$18,509

$$\begin{array}{r} 214825 \\ - 18509 \\ \hline 196316 \end{array}$$

\$196,316

3. What is the solution to each of the following equations?

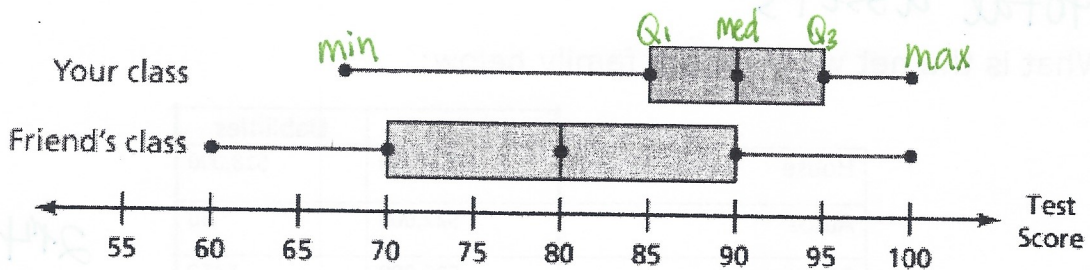
$\begin{array}{r} 4x + 16 = 4 \\ - 16 \quad - 16 \\ \hline 4x = -12 \\ \frac{4x}{4} = \frac{-12}{4} \\ x = -3 \end{array}$	$\begin{array}{r} 2x + 12 = 45 \\ - 12 \quad - 12 \\ \hline 2x = 33 \\ \frac{2x}{2} = \frac{33}{2} \\ x = 16.5 \end{array}$	$\begin{array}{r} \frac{x}{3} - 10 = 5 \\ \quad + 10 \quad + 10 \\ \hline \frac{x}{3} = 15 \\ (\cancel{3}) \frac{x}{\cancel{3}} = 15(\cancel{3}) \\ x = 45 \end{array}$
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4. Determine the constant of proportionality for the following table:

Pounds (x)	Cost (y)
11	\$49.50
15	\$67.50
20	\$90.00

$$\frac{y}{x} = \frac{90}{20} = \frac{9}{2} = \boxed{\$4.50}$$

5. Use the two box plots to answer the questions below.

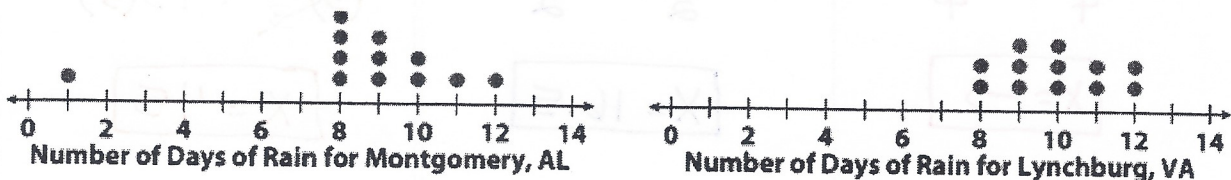


- What is the median for your class? 90
- What is the range for your friend's class? 100 - 60 = 40
- What is the interquartile range for your friend's class? 90 - 70 = 20
- What is the maximum for your class? 100

6. I am starting a business to make bracelets. For one bracelet, I paid \$3 for the leather and \$0.20 for each bead. Write an equation that would show the relationship between the cost of the bracelet, c , and the number of beads, b , I decide to use.

$$3 + 0.20b = c$$

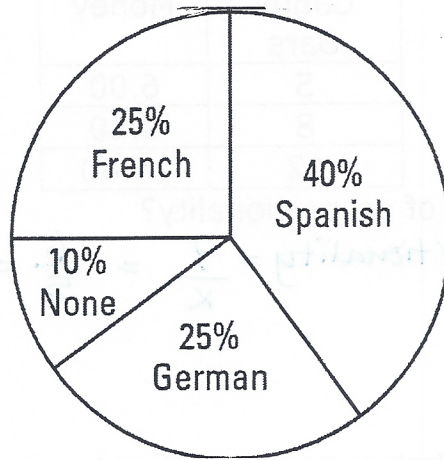
7. Use the two dot plots to answer the questions below.



- What is the mode for Montgomery? 8 (mode = most often)
- What is the range for Lynchburg? 12 - 8 = 4
- Is the graph for Montgomery symmetrical, skewed right or skewed left? skewed left (skewed left = less on the left)
- What is the minimum number of days of rain for Lynchburg? 8

8. The circle graph below shows the percent of students that chose each of the foreign languages at Porter High School

Porter High School



$$\frac{25 \text{ french}}{100 \text{ total}} = \frac{x \text{ \# taking french}}{240 \text{ total students}}$$

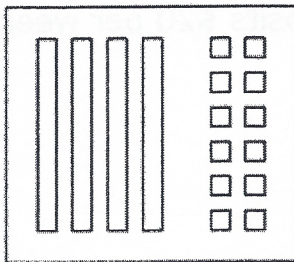
$$\begin{array}{r} 240 \\ \times 25 \\ \hline 1200 \\ + 4800 \\ \hline 6000 \end{array}$$

$$100 \overline{) 6000} \quad 60$$

If there are 240 students at Porter High school, how many students are enrolled in a French class?

60 students

9. What value of x makes the equation true?

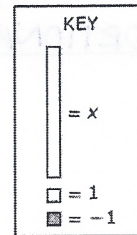


$$4x + 12$$

=



$$-8$$



$$4x + 12 = -8$$

$$\quad \quad -12 \quad -12$$

$$\frac{4x}{4} = \frac{-20}{4}$$

$$x = -5$$

10. The table below shows the relationship between the number of days run, x, and the number of miles completed.

Days (x)	Miles (y)
0	0
1	6
2	12
3	18

Since the y value is zero when the x is zero, that means it is a proportional relationship and will not have anything added to the variable in the equation

Write an equation which would represent this relationship.

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

$$\frac{6}{1} = 6 \text{ constant of proportionality}$$

$$y = 6x$$

$$8 + 20 = y$$

11. Jim bought candy bars for his friends. The number of candy bars and the money he spent is shown in the table below. The table of values represents a proportional relationship.

x	y
Candy Bars	Money
5	6.00
8	9.60
12	14.40

What is the constant of proportionality?

Constant of proportionality = $\frac{y}{x} = \frac{6}{5} = 5 \overline{) 6.0} = \boxed{1.2}$

12. Label each situation below as proportional or non-proportional.

A. Jake has to pay \$40 per month for the gym and a \$200 membership fee. Non proportional (b/c of the additional fee.)

B. Linda runs 5 miles every day. PROPORTIONAL

C. A medium pizza costs \$10 and \$0.50 per topping. NONPROPORTIONAL

D. Jack has \$500 in his savings account and deposits \$20 per week. NONPROPORTIONAL

13. Write an equation to represent the relationship between the x-values and the y-values in the table.

X	Y
0	8
1	14
2	20

the y intercept is the value of y when x is = 0

$$y = \frac{y}{x} X + 8$$

$$y = \frac{6}{1} X + 8$$

$$\boxed{y = 6x + 8}$$

$$\boxed{x = y}$$