

Correctly answer each question. Bonus questions are not required, but will add extra credit points.

- 1) In the following data set, find the MEAN: \_\_\_\_\_, MEDIAN: \_\_\_\_\_, MODE(s) (if any): \_\_\_\_\_  
 LOWER QUARTILE: \_\_\_\_\_ UPPER QUARTILE: \_\_\_\_\_ RANGE: \_\_\_\_\_  
 OUTLIERS (if any) \_\_\_\_\_

12 118 112 112 117 116 117 117 110 99 117 112 119 110 147

\_\_\_\_\_ 2) In the BAR graph at right, how many students failed the quiz?

\_\_\_\_\_ 3) In the graph at right, how many more students got As than got Ds?

\_\_\_\_\_ 4) Simplify:  $3 + 3(5 - 3)$

In questions 5-7, use these values for x, y and z:

$x = 0.5, y = 4.5, z = 0$

\_\_\_\_\_ 5)  $(x)^3 + (y)^3$

\_\_\_\_\_ 6)  $z + y(10)$

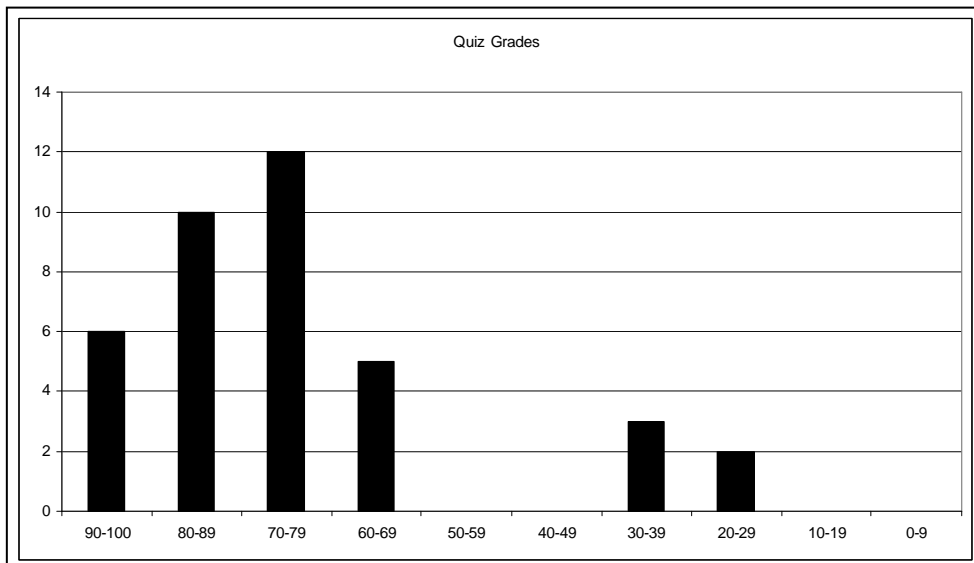
\_\_\_\_\_ 7)  $-y + x$

\_\_\_\_\_ 7b)  $25^x$

\_\_\_\_\_ 7c) Store 27 in x. Store -3 in y. Find  $\frac{x}{y}$

\_\_\_\_\_ 8) Round  $\pi$  to the nearest  $100^{\text{th}}$ . \_\_\_\_\_ 8a) Round  $\sqrt{2}$  to the nearest  $1000^{\text{th}}$

\_\_\_\_\_ 9) Divide  $22 \div 3$  and round your answer to the nearest  $10^{\text{th}}$ .



**SOLVING EQUATIONS AND INEQUALITIES.** Solve each equation. Show your steps! show your solution on the number line above the problem. (In the equations with fractions, don't forget to multiply by the reciprocal!)

10)  $\frac{3}{4}x + 7 = 22$

11)  $\frac{2}{3}x + 1 = -3$

12)  $-3x - 5 = 1$

\_\_\_\_\_ 14) You scored a 99 on the first TWO QUIZZES. What would your new average be if you scored a 89 on the THIRD quiz?

15) YES \_\_\_ NO \_\_\_\_\_ Lisa rounded 4.96 and 9.95 and multiplied them. Her estimated answer was 40. Was that a good estimate? Explain.

\_\_\_\_\_ 16) If a marine biologist collected 50 bluegills and 11 of them were over 5 inches in length, what percent of the bluegills were over 5 inches in length?

\_\_\_\_\_ 17) If you multiply using the DISTRIBUTIVE PROPERTY in this expression:  $-3(2x + 1)$  which of the following would you get?

- a)  $a) -6x + 4$    b)  $6x + 3$    c)  $-6x - 3$    d)  $6x - 3$



\_\_\_\_\_ 18) Simplify  $\left(\frac{1}{2}\right)^3$

\_\_\_\_\_ 18b) Simplify  $|25 - 30|$

\_\_\_\_\_ 19) Which of the following shows this expression simplified?  $10x + 9 + 7x - 3$

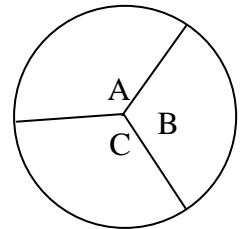
- a)  $3x + 12$    b)  $3x + 6$    c)  $17x + 6$    d)  $17x + 12$

\$ \_\_\_\_\_ 20) What is the sales tax (\$) on a \$25.00 purchase if the tax rate is 5.25%?

\_\_\_\_\_ 22) Use   to find the remainder in this division problem:  $19 \overline{)2117}$

\_\_\_\_\_ 23) In the circle at right, Angle A is  $120^\circ$ , and Angle C is  $120^\circ$ .  
Find the measure of Angle B.

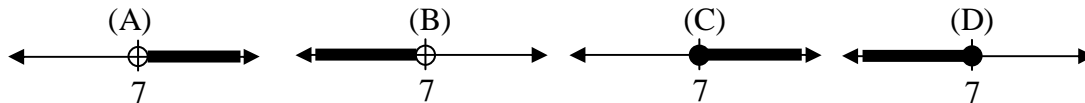
\_\_\_\_\_ 24) In the circle at right, if Angle A is  $120^\circ$ , what percent of the circle is that? Hint: Divide 120 by 360 and change to a %.



\_\_\_\_\_ 25) Find the Fahrenheit temperature if the Celsius temperature is  $20^\circ$ .


Use the formula  $F = \frac{9}{5}C + 32$

\_\_\_\_\_ 26) In the inequality  $x \leq 7$  which of the following would be the correct graph of the solution?



27) Convert each fraction to a percent by dividing the top number by the bottom number and moving the decimal point 2 places to the right. Show repeating decimals like this. If your display says  $8.1111111 = 8.\bar{1}$

$\frac{1}{4}$  \_\_\_\_\_  $\frac{2}{3}$  \_\_\_\_\_  $\frac{4}{5}$  \_\_\_\_\_  $\frac{11}{6}$  \_\_\_\_\_  $\frac{13}{10}$  \_\_\_\_\_

28) Convert each percent to a REDUCED fraction: Type each fraction. Press the convert button 

$33\frac{1}{3}\%$  \_\_\_\_\_  $15\%$  \_\_\_\_\_  $35\%$  \_\_\_\_\_  $66\frac{2}{3}\%$  \_\_\_\_\_