

MasterMath

8th Grade Quarter 3 Exam

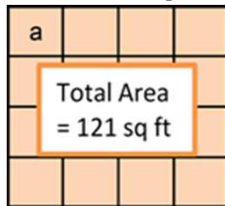
Name _____

Date _____

Closed Book; 45 minutes to complete
CUGC; You may use a calculator.

1. The area of a circle is 113.04 Sq In. What is the radius of the circle?

2. The larger square is made up of 16 smaller squares. What is the length of the sides of square "a"?



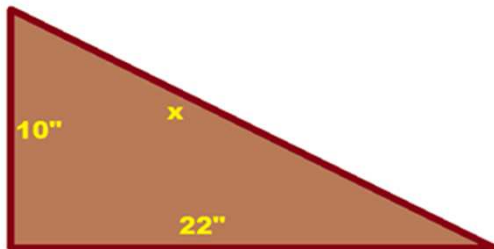
3. Without using a calculator, estimate the square root of 146.

4. Find x



Area of Square =
16 sq ft

5. Find x



6. The hypotenuse of a triangle is $\sqrt{20}$ ', and the height is 4'. What is the length of the base?

Simplify the expressions in Questions 7-9:

7. $4\sqrt{5} + 3\sqrt{5}$

8. $\sqrt{24} - 2\sqrt{6}$

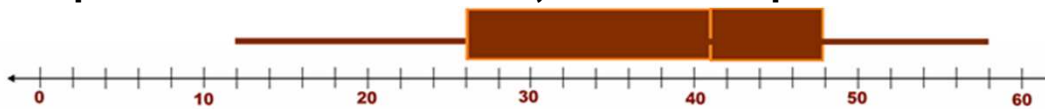
9. $\sqrt{(1/9)}$

Based upon the data in this chart, answer these questions:

Age of Students
18
17
20
19
46
16
17
14
19

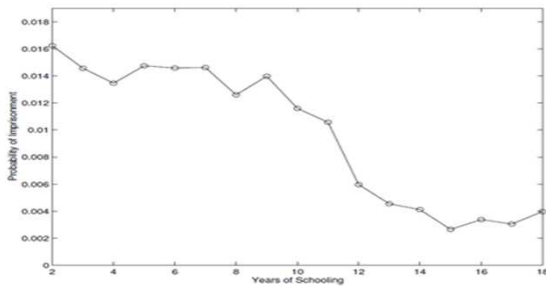
10. What is the mean?
11. What is the median?
12. What is the mode?
13. Why is there such large a variance in the measures of central tendency?

Based upon this Box-And-Whiskers Plot, answer these questions:



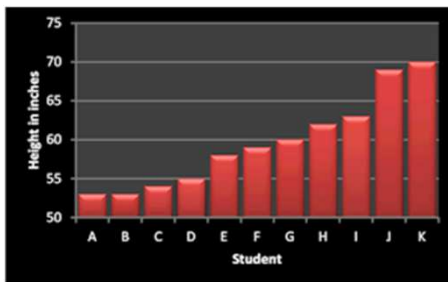
14. What percentage of the data is between 26 and 48?
15. What is the median?
16. The bottom 25% of the data falls within what range?

Based upon this Scatter Plot, answer these questions:



17. Does there appear to be a correlation shown? If so, what type?
18. In your own words, describe what the scatter plot shows us.

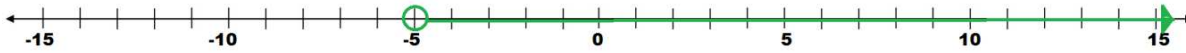
19. Why is this not a good choice for data display?



20. If I wanted to create a visual display of data that described 46 categories of food items, would a circle graph be a good choice?

21. Please translate into a math expression: twice a number is larger than 12.

22. Translate this number line into math, with x as the variable.



23. Translate into a math expression: "Everyone at the movie was at least twelve years old."

24. Please solve this inequality: $2x + 3 < 6$

25. Your lemonade stand sells lemonade for \$3 per glass. Write and solve an equation that represents how many glasses of lemonade you need to sell to make at least \$30.

26. Convert 144 to an exponential expression

27. Convert $5^3 * 3^2$ to a simple number

28. Simplify this expression: $(2x^2y)(3xy^3)$

29. Solve for x : $(x^2)^3 = 64$

30. Satelites have taken photographs of the earth from altitudes of 2^{19} meters up to a height of about twice that. Express the higher altitude as an exponent.

Results			
%	?s	Wrong	Concept
1	1-3		8.3.1
1	4-6		8.3.2
1	7-9		8.3.3
1	10-13		8.3.4
1	14-16		8.3.5
1	17-18		8.3.6
1	19-20		8.3.7
1	21-23		8.3.8
1	24-25		8.3.9
1	26-27		8.3.10
1	28-30		8.3.11
1			
1			
1		0	

