Grades 5 & 6 Individual 2016

Each question is worth 1 point. Tie breakers will only count in the event of a tie. Label answers as appropriate. Enjoy!

- 1. It costs 29 cents to mail a letter and 19 cents to mail a postcard. Tina wrote to 20 people last month. Her cost for postage was \$5.20. How many postcards did she write during that time?
- 2. $3010 \div 8 \times 6 4 \div 2 = ?$
- 3. One of my brothers is 4 years older than the other. If the sum of their ages is 38, the older brother is how old?
- 4. Joey has a collection of giant books that are either hardcover or softcover. If Joey has 63 books, and he has 2 hardcover books for every 7 softcover books how many hardcover books does Joey have?
- 5. Juanita is 150 cm tall. Juanita's older brother Carlos is 10 cm taller than Juanita. Juanita's younger brother Miguel is 4 cm shorter than Juanita. What is the average of the heights of Juanita, Carlos, and Miguel?
- 6. What is the difference between the two whole numbers whose product is 36 and whose sum is 13?
- 7. Professor Exacto insists that all of his students arrive at his class exactly 7 hours and 77 minutes before 7 p.m. What time do they arrive?
- 8. Samantha is exactly twelve and one-half years old and her niece Rose is one-thrid as old as Samantha. Yolanda is how many months old?
- 9. The sum of Jim's and Joan's ages is 30. If, 8 years ago, Jim was as old as Joan was 2 years ago, then how old is Jim now?
- 10. Two numbers have an average of 10 and a product of 91. What is the smaller of the numbers?
- 11. What is the difference between the greatest prime number less than 40 and the least prime number greater than 20?
- 12. Forty minutes after 4:40 is forty minutes before _____.
- 13. Every year, Arctic terns fly from the Arctic to the Antarctic and back, a distance of about 9000 miles each way. Suppose the birds fly at an average speed of 25 miles per hour for 12 hours a day. How many days of flying would be necessary to make the roundtrip?
- 14. Joanne buys a rectangular rug with an area of $\frac{35}{4}$ square meters. The length of the rug is $\frac{7}{2}$ meters. What is the width of the rug in meters?

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15. Thomas buys a case of bottled water. A case contains 36 bottles of water and costs \$4.69. Thomas will sell each bottle of water for \$0.75 at a school event. How much profit, in dollars, will Thomas earn if he sells all the bottles of water?

- 16. Connor is buying tickets to a concert. The concert he and his friends want to see is \$4.75 per ticket. Connor has \$26.00 total. What is the maximum number of tickets he can buy?
- 17. 30% of ____ is 60.
- 18. A boat takes 3 hours to reach an island 15 miles away. The boat travels at least 1 mile but no more than 6 miles during the first hour; at least 2 miles during the second hour and exactly 5 miles during the third hour. What is the range of miles the boat could have traveled during the **second** hour, given the conditions above.

19. 4 x
$$\frac{?}{?}$$
 < 4

20.
$$4 \times \frac{?}{?} = 4$$

21. 4 x
$$\frac{?}{?}$$
 > 4

- 22. Mark buys a wooden board that is 7 ½ feet long. The cost of the wooden board is \$0.50 per foot, including tax. What is the total cost in dollars of the wooden board?
- 23. If both square S and equilateral triangle T have a perimeter of 60 cm., how much longer in cm. is each side of T than each side of S?
- 24. If you are facing north and you turn 225° clockwise you are facing
 - a. Southwest
 - b. Southeast
 - c. Northwest
 - d. Northeast
- 25. A painting, *Cat Smile*, is prices at \$1200. Its price is increased by 10%. Its new price is then decreased by 10%. What is the final price of *Cat Smile*?

Tie breakers:

- 1. 30% of 40 is equal to 40% of _____?
- 2. The cost of 3 apples and 4 oranges is \$4. If 2 oranges cost half as much as 1 apple, then the cost of 2 apples is _____?
- 3. Mr. B Loon has 2 fancy balloons for every 7 plan ones. If he has 621 total, how many are fancy?