$$B > \frac{1}{n} \sum_{i=1}^{n} x_i$$

(Be greater than average)

Mental Math – 6$^{\text{th}}$ Grade

1. What number, when divided by nine, is equal to seventy-two?

2. Xavier is twice the age of Yolanda, who is a third of the age of Zachary. If Zachary is twelve years old, how old is Xavier?

3. The measure of one of the angles in a right triangle is sixty-four degrees. What is the degree measure of the smallest angle in that triangle?

4. A family of rabbits begins with five rabbits and doubles each of the following days. After how many days will it take for the rabbit family to have more than one-thousand members?

5. Suppose that two fair six-sided dice are rolled. What is the probability that the sum of the two numbers facing up is either two or twelve? Express your answer as a reduced fraction.

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6. Three-fourths is equivalent to how many thirty-sixths?

7. What is the perimeter of a rectangle whose length is twenty and width is fifteen?

8. What is the remainder when eight-thousand, four-hundred twenty-nine is divided by eight?

9. What is ten factorial divided by the quantity eight factorial times three factorial?

10. What is the numerator when the mixed number three-and-two-fifths is written as a reduced improper fraction?

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11. What is the sum of half the degree measure of a right angle and one-fourth the degree measure of a straight angle?

12. What is the product of twenty-three and twenty-one?

13. What is the sum of the positive integers between eight and fifteen, inclusively?

14. How many minutes have passed between six-thirty p.m. and ten-forty-five p.m.?

15. What is the positive difference between the sum of one-half and one-fourth, and the sum of one-fourth and one-eighth? Express your answer as a reduced fraction.

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16. What is the area of a right triangle with side lengths of five, twelve, and thirteen?

17. Siri buys three pounds of apples that cost sixty-five cents per pound. If she pays with a ten dollar bill, how many cents will she receive as change?

18. If M is equal to three-fourths, what is the value of thirty-two times M?

19. What is the least common multiple of nine and twenty-four?

20. Start with two-thirds of forty-five. Add one-sixth of seventy-two. Finally, divide by three. What is the final result?