

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

(Be greater than average)

Mental Math – 7th Grade

1. 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?
2. 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?
3. 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.
4. What is the sum of two-thirds of thirty-six and three-fifths of sixty?
5. What is the sum of one squared, two cubed, and the fourth power of three?

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6. What is the remainder when eight-thousand, four-hundred twenty-nine is divided by eight?
7. What is ten factorial divided by the quantity eight factorial times three factorial?
8. What is the numerator when the mixed number three-and-two-fifths is written as a reduced improper fraction?
9. How many degrees does the minute hand on a clock rotate between six a.m. and eight-fifteen a.m.?
10. What is four-sixths divided by eight-twelfths?

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11. What is the sum of the positive integers between eight and fifteen, inclusively?
12. How many minutes have passed between six-thirty p.m. and ten-forty-five p.m.?
13. 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.
14. What is the slope of the line that passes through the points “six comma five”, and “ten comma thirteen”?
15. How many zeroes are in quotient of five million divided by fifty?

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16. If M is equal to three-fourths, what is the value of thirty-two times M ?
17. What is the least common multiple of nine and twenty-four?
18. Start with two-thirds of forty-five. Add one-sixth of seventy-two. Finally, divide by three. What is the final result?
19. In a sequence, each term after the first term is one more than twice the previous term. If the first term is twelve, what is the fourth term of the sequence?
20. What is the volume of a cube that has a surface area of one-hundred fifty?