



# Mental Math 7th/8th

## Person 1

1	Evaluate: Three times eight plus eight minus two squared.
2	Find the area of an equilateral triangle with a side length of four.
3	Paulina's refrigerator has three magnets from Hawaii, two from Alaska, four from New York, and one from San Jose. If she randomly picks a magnet to stick a shopping list to the refrigerator, what is the probability that she picks a magnet from Alaska?
4	What is the smallest three digit integer with a factor of fifteen?
5	What is the slope of the line with equation two x plus five y equals one hundred?

## Person 2

1	Evaluate: seven fifths plus one third.
2	What is thirty percent of four hundred?
3	What is the perimeter of a square with area one hundred twenty-one square meters?
4	What is the next number in the sequence? Nineteen, twenty-two, twenty-five, twenty-eight.
5	Genevieve has fifty marbles. She feels generous, so she gives half to Marissa and one fifth of the remainder to Meghan. How many marbles does Genevieve have left?

## Person 3

1	Evaluate: Thirteen plus four minus six plus eighteen minus thirty-one.
2	What is the product of the number of faces on a cube and the number of sides on a triangle?
3	A square of side length six is inscribed in a circle. What is the area of the circle?
4	The world record for the high jump is seven point six feet. If I can jump five point nine feet, how much higher must I jump to match the world record? Express your answer as a decimal number of feet.
5	Pierce randomly draws a card from a standard deck of fifty two cards. What is the probability it is an even number?

## Person 4

1	What is the volume of a piece of cheese shaped like a rectangular prism if it has edges of length three, five, and two?
2	In how many ways can I rearrange the letters in the word "COOKIE," C-O-O-K-I-E?
3	Timmy orders a pizza with a diameter of sixteen inches. In square inches, what is the area of the pizza?
4	A tree casts a shadow that is twelve feet long. Marissa, who is standing next to the tree, measures her shadow and finds that it is four feet long. If the tree is eighteen feet tall, how many feet tall is Marissa?
5	Austin started running a marathon at eight thirty am, and finished six hours and thirty-three minutes later. At what time did he finish?