

DIGITLE – SAT/ACT

Puzzle 501 – Fractions/Rates & Percents

Directions: The first 5 problems have single digit answers. The 6th problem has a 5-digit answer (counting leading zeros if present). You have a choice: solve the easier single-digit answer problems or tackle the more difficult 5-digit answer. Once you have done that, attempt to solve the puzzle by entering the following url on your computer, tablet, or phone:

<https://mastermathmentor.com/mmm/digitle.ashx>.

The correct puzzle answer will be the digits of your answer(s) scrambled. Use the following interpretation. You get 6 tries.



Green : the digit is in the answer and is in the correct spot.

Yellow: the digit is in the answer but is not in the correct spot.

Grey : the digit is not in the answer.

Single Digit Answers:

- 1) The ratio of $m:k$ is 1:3. The ratio of $n:k$ is 2:5. If the ratio of $m:n$ is calculated, what positive integer less than 10 can represent m ?
- 2) A tourist hires an airport limo to take him from the Airport Hotel to his terminal. The driver charges \$0.75 for each quarter-mile and \$0.50 a half-minute for time spent not moving. The total trip was 2 miles with them stopped at a traffic light for 2 minutes. How much was the entire trip not including the tip?
- 3) How many pairs of distinct positive integers have a sum of 10?
- 4) A student takes a history test with 45 questions. He gets 80% of the questions correct. How many questions does he get incorrect?
- 5) Rasheed sold brownies and candy bars on his lawn. Brownies cost \$1.25 and candy bars cost \$1. He sold brownies and candy bars in the ratio of 2:1. If he sold 4 brownies, what was the total amount of money he received from sales?

5-Digit Answer:

- 6) A construction company purchases an electric truck at a cost of \$85,997. The vehicle is discounted 15% but there is a 6% sales tax and a 2% emissions tax on the vehicle. What is the cost of the truck to the nearest dollar?