3

speed time distance word problems

2012A

1. Cagney can frost a cupcake every 20 seconds and Lacey can frost a cupcake every 30 seconds. Working together, how many cupcakes can they frost in 5 minutes?

(A) 10   (B) 15   (C) 20   (D) 25   (E) 30

2013A

1. A taxi ride costs $1.50 plus $0.25 per mile traveled. How much does a 5-mile taxi ride cost?

(A) $2.25   (B) $2.50   (C) $2.75   (D) $3.00   (E) $3.25

2017B

2. Sofia ran 5 laps around the 400-meter track at her school. For each lap, she ran the first 100 meters at an average speed of 4 meters per second and the remaining 300 meters at an average speed of 5 meters per second. How much time did Sofia take running the 5 laps?

(A) 5 minutes and 35 seconds   (B) 6 minutes and 40 seconds

(C) 7 minutes and 5 seconds   (D) 7 minutes and 25 seconds

(E) 8 minutes and 10 seconds

2018B

2. Sam drove 96 miles in 90 minutes. His average speed during the first 30 minutes was 60 mph (miles per hour), and his average speed during the second 30 minutes was 65 mph. What was his average speed, in mph, during the last 30 minutes?

(A) 64   (B) 65   (C) 66   (D) 67   (E) 68

2007B

3. A college student drove his compact car 120 miles home for the weekend and averaged 30 miles per gallon. On the return trip the student drove his parents' SUV and averaged only 20 miles per gallon. What was the average gas mileage, in miles per gallon, for the round trip?

(A) 22   (B) 24   (C) 25   (D) 26   (E) 28

2009B

3. Paula the painter had just enough paint for 30 identically sized rooms. Unfortunately, on the way to work, three cans of paint fell off her truck, so she had only enough paint for 25 rooms. How many cans of paint did she use for the 25 rooms?

(A) 10   (B) 12   (C) 15   (D) 18   (E) 25

2014B

3. Randy drove the first third of his trip on a gravel road, the next 20 miles on pavement, and the remaining one-fifth on a dirt road. In miles, how long was Randy's trip?

(A) 30   (B) $\dfrac{400}{11}$ (C) $\dfrac{75}{2}$ (D) 40   (E) $\dfrac{300}{7}$

2003A

4. It takes Mary 30 minutes to walk uphill 1 km from her home to school, but it takes her only 10 minutes to walk from school to home along the same route. What is her average speed, in km/hr, for the round trip?

(A) 3   (B) 3.125   (C) 3.5   (D) 4   (E) 4.5

2009A

4. Eric plans to compete in a triathlon. He can average 2 miles per hour in the $\frac{1}{4}$-mile swim and 6 miles per hour in the 3-mile run. His goal is to finish the triathlon in 2 hours. To accomplish his goal what must his average speed, in miles per hour, be for the 15-mile bicycle ride?

(A) $\dfrac{120}{11}$ (B) 11   (C) $\dfrac{56}{5}$ (D) $\dfrac{45}{4}$ (E) 12

2003B

5. Moe uses a mower to cut his rectangular 90-foot by 150-foot lawn. The swath he cuts is 28 inches wide, but he overlaps each cut by 4 inches to make sure that no grass is missed. He walks at the rate of 5000 feet per hour while pushing the mower. Which of the following is closest to the number of hours it will take Moe to mow his lawn?

(A) 0.75   (B) 0.8   (C) 1.35   (D) 1.5   (E) 3