2-6 Standardized Test Prep

Ratios, Rates, and Conversions

Multiple Choice

For Exercises 1–6, choose the correct letter.

1. Which of the following rates is a unit rate?

A. $\frac{24 \text{ in.}}{1 \text{ yd}}$ **B.** $\frac{24 \text{ in.}}{2 \text{ ft}}$ **C.** $\frac{3 \text{ ft}}{1 \text{ yd}}$ **D.** $\frac{1 \text{ ft}}{12 \text{ in.}}$

2. How many centimeters are in 1 kilometer?

F. 0.000001 **G.** 0.00001 **H.** 10,000 **I.** 100,000

3. How many inches are in 3 yd 2 ft?

A. 60 **B.** 72 **C.** 132 **D.** 180

4. To convert miles per hour to feet per second, which conversion factor would not be used?

F. $\frac{1 \text{ hr}}{60 \text{ min}}$ **G.** $\frac{1 \text{ min}}{60 \text{ sec}}$ **H.** $\frac{5280 \text{ ft}}{1 \text{ mi}}$ **I.** $\frac{1 \text{ mi}}{5280 \text{ ft}}$

5. A healthy, adult cheetah can run 110 feet per second. How fast can a cheetah run in miles per hour?

A. 55 **B.** 75 **C.** 87 **D.** 161.3

6. Emmanuel was speaking with a friend from another country. His friend told him that the speed limit on most highways is 100 kilometers per hour in her country. This speed sounded fast to Emmanuel. Approximately what speed is this in miles per hour?

F. 62 mph **G.** 65 mph **H.** 70 mph **I.** 100 mph

Short Response

7. Samantha earns $22 per hour as a plumbing apprentice. How much does she earn per minute in cents?

a. What conversion factors would she use?

b. What amount does she earn per minute in cents?