Conversions Word Problems

Name Key Class Period

Solve each problem.

1. Kate eats 12 hot dogs in 15 minutes. To qualify for a hot dog eating contest, she needs to eat 47 hot dogs in an hour. Does she meet this contest requirement?

$\frac{15 \text{ min}}{12 \text{ hd}} = 1.25$ minutes to eat 1 hot dog

yes

$47 \times 1.25 = 58.75$ minutes

2. Bob travels 16 km/sec. To break the speed record for a race, he needs to travel at least 961,000 meters per minute. Did he break the speed record?

$\frac{16 \text{ Km}}{1 \text{ sec.}} \cdot \frac{1000 \text{ m}}{1 \text{ Km}} \cdot \frac{60 \text{ sec.}}{1 \text{ min.}} = 960{,}000 \text{ m/min.}$

NO

3. Red is observing an abnormal unit of 14 pints per 2 miles. He wants to know if this is the same as 0.000145 gallons per foot. Is it?

$\frac{14 \text{ pts}}{2 \text{ miles}} \cdot \frac{1 \text{ qt.}}{2 \text{ pts.}} \cdot \frac{1 \text{ gal.}}{4 \text{ qts.}} \cdot \frac{1 \text{ mile}}{5280 \text{ ft.}} = 0.000166 \text{ gal/ft.}$

NO

4. To travel 80 miles, it will cost \$15 in gas. What is this rate in yards per Euros? One dollar is equivalent to 0.765 Euros.

$\frac{80 \text{ miles}}{\$15} \cdot \frac{5280 \text{ ft.}}{1 \text{ mile}} \cdot \frac{1 \text{ yd.}}{3 \text{ ft.}} \cdot \frac{\$1}{0.765 \text{ Euros}}$

$=$ 12270.15 yds/Euros

5. Yem travels at a rate of 20 yards per 3 minutes. Flem travels at a rate of 1250 feet per hour. Who is faster?

Yem $\frac{20 \text{ yds}}{3 \text{ min}} \cdot \frac{3 \text{ ft.}}{1 \text{ yd.}} \cdot \frac{60 \text{ min.}}{1 \text{ hr.}} = 1200 \text{ ft./hr.}$

Flem 1250 ft./hr.

Flem

6. Seven Ogs cost $5 dollars. How much do the 7 Ogs cost in Euros if one dollar is equivalent to 0.765 Euros?

$\frac{7 \text{ Ogs}}{\$5} \cdot \frac{\$1}{0.765 \text{ Euros}} = 1.83 \text{ Ogs/Euros}$

$\$5 (0.765) = 3.825$

3.825 Euros

7. Zoe drinks 40 cups of coffee. Zany drinks 22 pints of coffee. Zelly drinks 9 quarts of coffee. Who drank the most coffee?

Zoe: 40 cups

$\frac{22 \text{ pts}}{1} \cdot \frac{2 \text{ cups}}{1 \text{ pt.}}$

Zany: 44 cups

$\frac{9 \text{ qts}}{1} \cdot \frac{2 \text{ pt.}}{1 \text{ qt.}} \cdot \frac{2 \text{ cups}}{1 \text{ pt.}}$

Zelly: 36 cups

8. The owner of a lawn mowing business wants to know how much time, on average, his workers spend mowing a lawn. Last week, 7 employees each worked a 6-hour shift. In all, they mowed 42 lawns. Which is the most appropriate unit in which to calculate an answer to his questions?

A. lawns per employee
B. lawns per day
C. Empolyees per lawn
(D.) Hours per lawn

9. Which is equivalent to 21.76 grams per minute?

(A.) 1.306 kg/h
B. 13.06 kg/h
C. 36.267 kg/h
D. 362.67kg/h

$\frac{21.76 \text{ g}}{1 \text{ min}} \cdot \frac{1 \text{ kg}}{1000 \text{ g}} \cdot \frac{60 \text{ min.}}{1 \text{ hr.}} = 1.3056$