

Physics Quiz 1 12-13

Name: _____ *Key*

Class: _____ *B5*

Date: _____ *8.23.2012*

A

1. When multiplying 12,470 cm x 22 cm, which answer has the correct number of significant figures?

- A. 270,000 cm²
- B. 274,340 cm²
- C. 2.7434 x 10⁻⁵ cm²
- D. 274,300 cm²

C

2. When dividing 4261 m by 323 s, which answer has the correct number of significant figures?

- A. 13 m/s
- C. 13.2 m/s
- B. 13.19195 m/s
- D. 13.19 m/s

1712.47
3.
11397.46

If ground beef cost \$2.15 per pound, and you make \$30 a day at your job, how many grams worth of beef do you earn in a week? (Assume there are 2.2 pounds in a kg, and that you work every day of the week).

$$5 \text{ days} \cdot \frac{\$30}{\cancel{d}} \cdot \frac{1 \text{ kg}}{2.15 \cancel{lb}} \cdot \frac{5 \text{ kg}}{2.2 \cancel{lb}} \cdot \frac{1000 \text{ g}}{1 \text{ kg}}$$

31712.47

B

4.

Solve $a_c = \frac{v^2}{r}$ for r

- A. $r = a_c v^2$
- B. $r = \frac{v^2}{a_c}$
- C. $r = \frac{a_c}{v^2}$
- D. $r = \sqrt{\frac{a_c}{v}}$

(64)

5.

Compute $2.7 * 3.85 * 6.147$, expressing your answer with proper number of significant digits

6.

Compute $.0107 * 1.85 * .147$, expressing your answer with proper number of significant digits

0.00291

$$\frac{5.30 \cdot 1000}{2.15 \cdot 2.2}$$

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