

Lesson 12 Practice Problems

1. A backpack normally costs \$25 but it is on sale for \$21. What percentage is the discount?

(From Unit 4, Lesson 12.)

2. Find each product.

a. $\frac{2}{5} \cdot (-10)$

b. $-8 \cdot \left(\frac{-3}{2}\right)$

c. $\frac{10}{6} \cdot 0.6$

d. $\left(\frac{-100}{37}\right) \cdot (-0.37)$

(From Unit 5, Lesson 9.)

3. Select **all** expressions that show x increased by 35%.

A. $1.35x$

B. $\frac{35}{100}x$

C. $x + \frac{35}{100}x$

D. $(1 + 0.35)x$

E. $\frac{100+35}{100}x$

F. $(100 + 35)x$

4. Complete each sentence with the word *discount*, *deposit*, or *withdrawal*.

- a. Clare took \$20 out of her bank account. She made a _____.
- b. Kiran used a coupon when he bought a pair of shoes. He got a _____.
- c. Priya put \$20 into her bank account. She made a _____.
- d. Lin paid less than usual for a pack of gum because it was on sale. She got a _____.

(From Unit 4, Lesson 11.)

5. Here are two stories:

- The initial freshman class at a college is 10% smaller than last year's class. But then during the first week of classes, 20 more students enroll. There are then 830 students in the freshman class.
- A store reduces the price of a computer by \$20. Then during a 10% off sale, a customer pays \$830.

Here are two equations:

- $0.9x + 20 = 830$
- $0.9(x - 20) = 830$

- a. Decide which equation represents each story.
- b. Explain why one equation has parentheses and the other doesn't.
- c. Solve each equation, and explain what the solution means in the situation.