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Unit 6, Lesson 12
Practice Problems

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

2. Find each product.

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

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

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

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

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 _____.

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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.