PRACTICE DRILL 15—PERCENT CHANGE (UPPER LEVEL ONLY)

$$\% \text{ change} = \frac{\text{difference}}{\text{original}} \times 100$$

1. During a severe winter in Ontario, the temperature dropped suddenly to 10 degrees below zero. If the temperature in Ontario before this cold spell occurred was 10 degrees above zero, by what percent did the temperature drop?

2. Fatty's Burger wants to attract more customers by increasing the size of its patties. From now on Fatty's patties are going to be 4 ounces larger than before. If the size of its new patty is 16 ounces, by approximately what percent has the patty increased?

Practice Drill 15—Percent Change

1. 200%

    The question is testing percent change since it asks by what percent did the temperature drop? To find percent change, use this formula: % change $= \dfrac{\text{difference}}{\text{original}} \times 100$. The change in temperature was 20°: 10° − (−10°) = 20°. Since the question asks for the percent the temperature dropped, the larger number will be the original number. Thus, the equation should read $\dfrac{20}{10} \times 100$, which reduces to 2 × 100 = 200.

2. 33%

    The question is testing percent change since it asks by what percent did the patty increase? To find percent change, use this formula: % change $= \dfrac{\text{difference}}{\text{original}} \times 100$. The change in patty size is 4, which is given in the question. The new patty size is 16 oz, so the original patty size must have been 12 oz since 16 − 4 = 12. The equation will read $\dfrac{4}{12} \times 100$, which reduces to $\dfrac{1}{3} \times 100 = \dfrac{100}{3} = 33\dfrac{1}{3}$.