Lesson 2 Reteach

Percent and Estimation

To estimate the percent of a number, you can use a fraction or a multiple of 10% or 1%.

Example 1

Estimate 77% of 800.

77% is about 75% or $\frac{3}{4}$.

77% of $800 \approx \frac{3}{4} \cdot 800$ Use $\frac{3}{4}$ to estimate.

          ≈ 600 Multiply.

So, 77% of 800 is about 600.

Example 2

Estimate 137% of 50.

137% is more than 100%, so 137% of 50 is greater than 50. $137\% \approx 140\%$.

140% of $50 = (100\%$ of $50) + (40\%$ of $50)$ $140\% = 100\% + 40\%$

           $= (1 \cdot 50) + \left(\frac{2}{5} \cdot 50\right)$ $100\% = 1$ and $40\% = \frac{2}{5}$

           $= 50 + 20$ or 70 Simplify.

So, 137% of 50 is about 70.

Example 3

Estimate 0.5% of 692.

0.5% is half of 1%. 692 is about 700.

1% of $700 = 0.01 \cdot 700$ To multiply by 1%, move the decimal point two places to the left.

        $= 7$

One half of 7 is $\frac{1}{2} \cdot 7$ or 3.5.

So, 0.5% of 697 is about 3.5.

Exercises

Estimate.

1. 24% of 36   **2.** 81% of 25   **3.** 11% of 67

4. 150% of 179   **5.** 67% of 450   **6.** 79% of 590

7. 0.4% of 200   **8.** 42% of 61   **9.** 19% of 41