

### 3-10 Problem-Solving Investigation: Reasonable Answers - Mixed Problem Solving

**Determine reasonable answers.**

3. **CLOTHES** Annie wants to buy 2 pairs of capris for \$34.99 each and 3 pairs of flip-flops for \$7.99 each. Does she need to save \$150, or is \$100 enough?

$$\$34.99 \times 2 = \$69.98$$

$$\$7.99 \times 3 = \$23.97$$

$$\$69.98 + \$23.97 = \$93.95$$

\$100 is enough to save for the items Annie wants to purchase.

5. **PLAYGROUND** The length of a playground is 88.5 yards. Which is a more reasonable estimate for the length of the playground in feet: 240 or 270?

$$88.5 \times 3 = 265.5$$

270 feet is a reasonable estimate for the length of the playground.

**Use any strategy to solve. Some strategies are shown below.**

#### **PROBLEM-SOLVING STRATEGIES**

- Make a table.
- Guess and check.

7. **SHOPPING** An online store sells personalized magnets for \$3.25 each and personalized keychains for \$5.79 each. If Mrs. Anderson spent \$56.78 on magnets and keychains, how many of each did she buy?

#### **Guess and Check:**

$$5 \times \$3.25 = \$16.25$$

$$7 \times \$5.79 = \$40.53$$

$$\$16.25 + \$40.53 = \$56.78$$

**Use the table below that shows the number of CD singles that were shipped for sale from 2001 to 2005.**

Year	CD Singles Shipped (millions)
2001	17.3
2002	4.5
2003	8.3
2004	3.1
2005	2.8

9. Which year had about 5 million less CDs shipped than 2003?

$$8.3 - 5 = 3.3$$

2004 had about 5 million less CDs shipped than in 2003.

**Name:**   **School:**   **Grade:**   **Class:**

- 11. NUMBERS** John wrote down two numbers. The product of the numbers is 48 and the difference between the two numbers is 8. What are the two numbers John wrote down?

**Explore:** We know that John wrote down two numbers and the difference between the two numbers is 8. We need to find the numbers.

**Plan:** Guess two numbers and check whether their product is 48 and the difference is 8 between the two numbers.

**Solve:** Guess 4 and 12.

$$4 \times 12 = 48; 12 - 4 = 8$$

The numbers are 4, and 12.