

Complete the Circled Questions

LESSON

**1-3****Practice A****Square Roots**

Identify perfect squares that are closest in value to these numbers.

1. 47

perfect square  $< 47$  \_\_\_\_\_perfect square  $> 47$  \_\_\_\_\_

2. 119

perfect square  $< 119$  \_\_\_\_\_perfect square  $> 119$  \_\_\_\_\_

Estimate to the nearest whole number.

3.  $\sqrt{55}$

\_\_\_\_\_

4.  $\sqrt{92}$

\_\_\_\_\_

5.  $\sqrt{135}$

\_\_\_\_\_

Estimate to the nearest tenth.

6.  $\sqrt{42}$

\_\_\_\_\_

7.  $\sqrt{76}$

\_\_\_\_\_

8.  $\sqrt{90}$

\_\_\_\_\_

Simplify each expression. Use perfect square factors to help you.

9.  $\sqrt{48}$

\_\_\_\_\_

10.  $\sqrt{75}$

\_\_\_\_\_

11.  $-\sqrt{576}$

\_\_\_\_\_

12.  $\sqrt{45}$

\_\_\_\_\_

13.  $\sqrt{72}$

\_\_\_\_\_

14.  $\sqrt{200}$

\_\_\_\_\_

Simplify each expression.

15.  $\sqrt{3} \cdot \sqrt{12}$

\_\_\_\_\_

16.  $\frac{\sqrt{128}}{\sqrt{2}}$

\_\_\_\_\_

17.  $\frac{-4\sqrt{8}}{3}$

\_\_\_\_\_

Add or subtract.

18.  $3\sqrt{5} + 4\sqrt{5}$

\_\_\_\_\_

19.  $2\sqrt{9} - 2\sqrt{2}$

\_\_\_\_\_

20.  $-3\sqrt{15n} + 7\sqrt{15n}$

\_\_\_\_\_

**Practice B**  
**Square Roots**

Complete the Circled Questions

Estimate to the nearest tenth.

1.  $\sqrt{78}$

2.  $-\sqrt{57}$

3.  $\sqrt{39}$

Simplify each expression.

4.  $\sqrt{243}$

5.  $\frac{\sqrt{90}}{\sqrt{40}}$

6.  $\sqrt{42} \cdot \sqrt{3}$

7.  $-\frac{4}{\sqrt{144}}$

8.  $\sqrt{\frac{125}{5}}$

9.  $-\sqrt{320}$

Simplify by rationalizing each denominator.

10.  $\frac{6}{\sqrt{5}}$

11.  $\frac{-3\sqrt{15}}{\sqrt{3}}$

12.  $\frac{\sqrt{13}}{4\sqrt{6}}$

Add or subtract.

13.  $7\sqrt{5} - 10\sqrt{5}$

14.  $12\sqrt{3} + 3\sqrt{12}$

15.  $-6\sqrt{50} + 4\sqrt{32}$

Solve.

16. A building has a mural painted on an outside wall. The mural is a square with an area of  $14,400 \text{ ft}^2$ . What is the width of the mural?