

**#1-3, Identify the integers each radical falls between.**

1.  $\sqrt{43}$

2.  $\sqrt{154}$

3.  $-\sqrt{15}$

**#4-9, Review: Simplify each radical.**

4.  $\sqrt{63}$

5.  $-5\sqrt{128}$

6.  $\frac{1}{3}\sqrt{108}$

7.  $3\sqrt{8} - 5\sqrt{3} + \sqrt{2}$

8.  $\sqrt{48} + 10\sqrt{27}$

9.  $\sqrt{\frac{27}{81}}$

**#10-24, Multiply or use powers on each radical expression.**

10.  $\sqrt{6} \cdot \sqrt{18}$

11.  $4\sqrt{2} \cdot -3\sqrt{8}$

12.  $(6\sqrt{12})(\sqrt{8})$

13.  $(\sqrt{3})(\sqrt{15})$

14.  $\sqrt{2}(3\sqrt{2} + 5)$

15.  $(3 - \sqrt{11})(3 + \sqrt{11})$

16.  $(7\sqrt{10})^2$

17.  $(5\sqrt{2})^2$

18.  $(3\sqrt{2} + 1)(5\sqrt{3} - 8)$

19.  $3\sqrt{5}(\sqrt{15} - 1)$

20.  $(3\sqrt{7})^2$

21.  $\left(\frac{1}{3}\sqrt{5}\right)^2$

22.  $(6 - 2\sqrt{5})^2$

23.  $(2\sqrt{3})(5\sqrt{3})$

24.  $(2\sqrt{3} - 5)^2$

**#25- 28, Rationalize the denominator and simplify.**

25.  $\frac{\sqrt{3}}{\sqrt{5}}$

26.  $\frac{\sqrt{3}}{\sqrt{25}}$

27.  $\frac{\sqrt{8}}{\sqrt{27}}$

28.  $2\sqrt{\frac{9}{8}}$

**29. Find the perimeter and area of the rectangle.**

a. Perimeter =

b. Area =

