

**Radicals Practice****Simplify.**

1)  $\sqrt{36}$

2)  $\sqrt{48}$

3)  $\sqrt{18p^2}$

4)  $\sqrt{12x^2}$

5)  $-3\sqrt{150a^4}$

6)  $-6\sqrt{200v^3}$

7)  $3\sqrt{6} \cdot \sqrt{6}$

8)  $2\sqrt{5} \cdot \sqrt{3}$

9)  $(3\sqrt{5} + \sqrt{2})(\sqrt{3} - 5\sqrt{2})$

10)  $(\sqrt{2} + \sqrt{3})^2$

11)  $2\sqrt{10p}(\sqrt{2p} + 4p^3)$

12)  $\sqrt{10}(5\sqrt{2} + \sqrt{6x})$

13)  $\frac{\sqrt{8}}{\sqrt{50}}$

14)  $\frac{5\sqrt{5}}{\sqrt{20}}$

15)  $\frac{\sqrt{3} + 5\sqrt{5}}{5\sqrt{4}}$

16)  $\frac{4 - 3\sqrt{3}}{2\sqrt{9}}$

17)  $-\sqrt{27} - 3\sqrt{20} - 3\sqrt{3}$

18)  $-3\sqrt{45} + 3\sqrt{12} + 3\sqrt{45}$

19)  $2\sqrt{20} - 3\sqrt{54} - 2\sqrt{5}$

20)  $-\sqrt{5} - 2\sqrt{8} - 3\sqrt{18}$

## Radicals Practice

Simplify.

1)  $\sqrt{36}$

6

2)  $\sqrt{48}$

$4\sqrt{3}$

3)  $\sqrt{18p^2}$

$3p\sqrt{2}$

4)  $\sqrt{12x^2}$

$2x\sqrt{3}$

5)  $-3\sqrt{150a^4}$

$-15a^2\sqrt{6}$

6)  $-6\sqrt{200v^3}$

$-60v\sqrt{2v}$

7)  $3\sqrt{6} \cdot \sqrt{6}$

18

8)  $2\sqrt{5} \cdot \sqrt{3}$

$2\sqrt{15}$

9)  $(3\sqrt{5} + \sqrt{2})(\sqrt{3} - 5\sqrt{2})$

$3\sqrt{15} - 15\sqrt{10} + \sqrt{6} - 10$

10)  $(\sqrt{2} + \sqrt{3})^2$

$5 + 2\sqrt{6}$

$$11) 2\sqrt{10p}(\sqrt{2p} + 4p^3)$$
$$4p\sqrt{5} + 8p^3\sqrt{10p}$$

$$12) \sqrt{10}(5\sqrt{2} + \sqrt{6x})$$
$$10\sqrt{5} + 2\sqrt{15x}$$

$$13) \frac{\sqrt{8}}{\sqrt{50}}$$
$$\frac{2}{5}$$

$$14) \frac{5\sqrt{5}}{\sqrt{20}}$$
$$\frac{5}{2}$$

$$15) \frac{\sqrt{3} + 5\sqrt{5}}{5\sqrt{4}}$$
$$\frac{\sqrt{3} + 5\sqrt{5}}{10}$$

$$16) \frac{4 - 3\sqrt{3}}{2\sqrt{9}}$$
$$\frac{4 - 3\sqrt{3}}{6}$$

$$17) -\sqrt{27} - 3\sqrt{20} - 3\sqrt{3}$$
$$-6\sqrt{3} - 6\sqrt{5}$$

$$18) -3\sqrt{45} + 3\sqrt{12} + 3\sqrt{45}$$
$$6\sqrt{3}$$

$$19) 2\sqrt{20} - 3\sqrt{54} - 2\sqrt{5}$$
$$2\sqrt{5} - 9\sqrt{6}$$

$$20) -\sqrt{5} - 2\sqrt{8} - 3\sqrt{18}$$
$$-\sqrt{5} - 13\sqrt{2}$$