

## Multiplying Square Roots

**Simplify.**

1)  $\sqrt{5} \cdot \sqrt{5}$

2)  $\sqrt{10} \cdot \sqrt{2}$

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

4)  $\sqrt{20} \cdot \sqrt{10}$

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

6)  $\sqrt{5} \cdot \sqrt{12}$

7)  $2\sqrt{2} \cdot \sqrt{12}$

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

9)  $\sqrt{6} \cdot -2\sqrt{6}$

10)  $\sqrt{2} \cdot -2\sqrt{5}$

11)  $\sqrt{6} \cdot -\sqrt{9}$

12)  $\sqrt{5} \cdot -5\sqrt{5}$

$$13) \sqrt{15}(\sqrt{3} + 2)$$

$$14) \sqrt{6}(\sqrt{2} + \sqrt{3})$$

$$15) \sqrt{10}(\sqrt{10} + 2)$$

$$16) \sqrt{5}(\sqrt{5} + 3)$$

$$17) \sqrt{5}(5 + \sqrt{5})$$

$$18) \sqrt{15}(\sqrt{3} + \sqrt{10})$$

$$19) -5\sqrt{3}(2 + \sqrt{5})$$

$$20) \sqrt{3}(5 + \sqrt{2})$$

$$21) \sqrt{10}(4\sqrt{2} + \sqrt{5})$$

$$22) 3\sqrt{6}(\sqrt{10} - \sqrt{3})$$

$$23) -4\sqrt{5}(4 - 3\sqrt{10})$$

$$24) \sqrt{5}(-4\sqrt{6} + \sqrt{10})$$

## Multiplying Square Roots

**Simplify.**

1)  $\sqrt{5} \cdot \sqrt{5}$

5

2)  $\sqrt{10} \cdot \sqrt{2}$

 $2\sqrt{5}$ 

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

8

4)  $\sqrt{20} \cdot \sqrt{10}$

 $10\sqrt{2}$ 

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

3

6)  $\sqrt{5} \cdot \sqrt{12}$

 $2\sqrt{15}$ 

7)  $2\sqrt{2} \cdot \sqrt{12}$

 $4\sqrt{6}$ 

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

 $2\sqrt{10}$ 

9)  $\sqrt{6} \cdot -2\sqrt{6}$

-12

10)  $\sqrt{2} \cdot -2\sqrt{5}$

 $-2\sqrt{10}$ 

11)  $\sqrt{6} \cdot -\sqrt{9}$

 $-3\sqrt{6}$ 

12)  $\sqrt{5} \cdot -5\sqrt{5}$

-25

$$13) \sqrt{15}(\sqrt{3} + 2)$$
$$3\sqrt{5} + 2\sqrt{15}$$

$$14) \sqrt{6}(\sqrt{2} + \sqrt{3})$$
$$2\sqrt{3} + 3\sqrt{2}$$

$$15) \sqrt{10}(\sqrt{10} + 2)$$
$$10 + 2\sqrt{10}$$

$$16) \sqrt{5}(\sqrt{5} + 3)$$
$$5 + 3\sqrt{5}$$

$$17) \sqrt{5}(5 + \sqrt{5})$$
$$5\sqrt{5} + 5$$

$$18) \sqrt{15}(\sqrt{3} + \sqrt{10})$$
$$3\sqrt{5} + 5\sqrt{6}$$

$$19) -5\sqrt{3}(2 + \sqrt{5})$$
$$-10\sqrt{3} - 5\sqrt{15}$$

$$20) \sqrt{3}(5 + \sqrt{2})$$
$$5\sqrt{3} + \sqrt{6}$$

$$21) \sqrt{10}(4\sqrt{2} + \sqrt{5})$$
$$8\sqrt{5} + 5\sqrt{2}$$

$$22) 3\sqrt{6}(\sqrt{10} - \sqrt{3})$$
$$6\sqrt{15} - 9\sqrt{2}$$

$$23) -4\sqrt{5}(4 - 3\sqrt{10})$$
$$-16\sqrt{5} + 60\sqrt{2}$$

$$24) \sqrt{5}(-4\sqrt{6} + \sqrt{10})$$
$$-4\sqrt{30} + 5\sqrt{2}$$