

Multiplying and Dividing Square Roots

Date_____ Period____

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Simplify.

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

2) $-\sqrt{6} \cdot 4\sqrt{20}$

3) $-4\sqrt{3} \cdot \sqrt{18}$

4) $4\sqrt{30} \cdot \sqrt{6}$

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

6) $\sqrt{2} \cdot -4\sqrt{6}$

7) $2\sqrt{12} \cdot 2\sqrt{3}$

8) $4\sqrt{2} \cdot 5\sqrt{3}$

9) $2\sqrt{12} \cdot 4\sqrt{15}$

10) $-3\sqrt{15} \cdot 5\sqrt{6}$

11) $\frac{6\sqrt{6}}{\sqrt{4}}$

12) $\frac{5\sqrt{10}}{6\sqrt{2}}$

$$13) \frac{4\sqrt{6}}{\sqrt{2}}$$

$$14) \frac{3\sqrt{30}}{6\sqrt{216}}$$

$$15) \frac{3\sqrt{36}}{6\sqrt{4}}$$

$$16) \frac{6\sqrt{36}}{4\sqrt{4}}$$

$$17) \frac{3\sqrt{6}}{\sqrt{5}}$$

$$18) \frac{5\sqrt{5}}{4\sqrt{2}}$$

$$19) -\frac{4}{3\sqrt{5}}$$

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

$$21) \frac{4\sqrt{3}}{3\sqrt{2}}$$

$$22) \frac{6\sqrt{6}}{2\sqrt{5}}$$

$$23) \frac{6\sqrt{3}}{3\sqrt{6}}$$

$$24) \frac{3\sqrt{6}}{6\sqrt{5}}$$

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Simplify.

$$1) \sqrt{2} \cdot \sqrt{5}$$
$$\sqrt{10}$$

$$2) -\sqrt{6} \cdot 4\sqrt{20}$$
$$-8\sqrt{30}$$

$$3) -4\sqrt{3} \cdot \sqrt{18}$$
$$-12\sqrt{6}$$

$$4) 4\sqrt{30} \cdot \sqrt{6}$$
$$24\sqrt{5}$$

$$5) \sqrt{2} \cdot \sqrt{12}$$
$$2\sqrt{6}$$

$$6) \sqrt{2} \cdot -4\sqrt{6}$$
$$-8\sqrt{3}$$

$$7) 2\sqrt{12} \cdot 2\sqrt{3}$$
$$24$$

$$8) 4\sqrt{2} \cdot 5\sqrt{3}$$
$$20\sqrt{6}$$

$$9) 2\sqrt{12} \cdot 4\sqrt{15}$$
$$48\sqrt{5}$$

$$10) -3\sqrt{15} \cdot 5\sqrt{6}$$
$$-45\sqrt{10}$$

$$11) \frac{6\sqrt{6}}{\sqrt{4}}$$
$$3\sqrt{6}$$

$$12) \frac{5\sqrt{10}}{6\sqrt{2}}$$
$$\frac{5\sqrt{5}}{6}$$

$$13) \frac{4\sqrt{6}}{\sqrt{2}}$$

$$4\sqrt{3}$$

$$14) \frac{3\sqrt{30}}{6\sqrt{216}}$$

$$\frac{\sqrt{5}}{12}$$

$$15) \frac{3\sqrt{36}}{6\sqrt{4}}$$

$$\frac{3}{2}$$

$$16) \frac{6\sqrt{36}}{4\sqrt{4}}$$

$$\frac{9}{2}$$

$$17) \frac{3\sqrt{6}}{\sqrt{5}}$$

$$\frac{3\sqrt{30}}{5}$$

$$18) \frac{5\sqrt{5}}{4\sqrt{2}}$$

$$\frac{5\sqrt{10}}{8}$$

$$19) -\frac{4}{3\sqrt{5}}$$

$$-\frac{4\sqrt{5}}{15}$$

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

$$\sqrt{10}$$

$$21) \frac{4\sqrt{3}}{3\sqrt{2}}$$

$$\frac{2\sqrt{6}}{3}$$

$$22) \frac{6\sqrt{6}}{2\sqrt{5}}$$

$$\frac{3\sqrt{30}}{5}$$

$$23) \frac{6\sqrt{3}}{3\sqrt{6}}$$

$$\sqrt{2}$$

$$24) \frac{3\sqrt{6}}{6\sqrt{5}}$$

$$\frac{\sqrt{30}}{10}$$