

## More Practice with Multiplying /Dividing Square Roots

Solve. Simplify completely.

$$1. \quad \sqrt{48} \cdot \sqrt{12} = \boxed{24}$$

$$4\sqrt{3} \cdot 2\sqrt{3} = 8\sqrt{9} = 8 \cdot 3$$

$$4. \quad -3\sqrt{75} \cdot -2\sqrt{50} = \boxed{150\sqrt{6}}$$

$$-15\sqrt{3} \cdot -10\sqrt{2}$$

$$7. \quad \sqrt{\frac{5}{8}} = \boxed{\frac{\sqrt{10}}{4}}$$

$$\frac{\sqrt{5}}{\sqrt{8}} = \frac{\sqrt{5}}{2\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{10}}{2\sqrt{4}}$$

$$10. \quad 5\sqrt{\frac{20}{25}} = \boxed{2\sqrt{5}}$$

$$\frac{5\sqrt{20}}{\sqrt{25}} = \frac{5\sqrt{4 \cdot 5}}{5} = \sqrt{20} = 2\sqrt{5}$$

$$13. \quad \frac{\sqrt{15}}{\sqrt{30}} = \boxed{\frac{\sqrt{2}}{2}}$$

$$\frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{\sqrt{4}} = \frac{\sqrt{2}}{2}$$

$$2. \quad 3\sqrt{72} \cdot \sqrt{18} = \boxed{108}$$

$$18\sqrt{2} \cdot \sqrt{2} = 54\sqrt{4} = 54 \cdot 2$$

$$5. \quad \sqrt{36} \cdot \sqrt{2} = \boxed{6\sqrt{2}}$$

$$6 \cdot \sqrt{2}$$

$$8. \quad \sqrt{\frac{3}{6}} = \boxed{\frac{\sqrt{2}}{2}}$$

$$\frac{\sqrt{3}}{\sqrt{6}} \cdot \frac{\sqrt{6}}{\sqrt{6}} = \frac{\sqrt{18}}{6} = \frac{3\sqrt{2}}{6} = \frac{\sqrt{2}}{2}$$

$$11. \quad \frac{\sqrt{25}}{\sqrt{11}} = \boxed{\frac{5\sqrt{11}}{11}}$$

$$\frac{\sqrt{25}}{\sqrt{11}} = \frac{5}{\sqrt{11}} \cdot \frac{\sqrt{11}}{\sqrt{11}} = \frac{5\sqrt{11}}{\sqrt{121}}$$

$$14. \quad \frac{2\sqrt{15}}{\sqrt{12}} = \boxed{\sqrt{5}}$$

$$\frac{2\sqrt{15}}{2\sqrt{3}} = \frac{\sqrt{15}}{\sqrt{3}} = \frac{\sqrt{5}}{\sqrt{1}} = \sqrt{5}$$

$$3. \quad -5\sqrt{90} \cdot \sqrt{60} = \boxed{-150\sqrt{6}}$$

$$-15\sqrt{10} \cdot 2\sqrt{15} = -30\sqrt{150} = -150\sqrt{6}$$

$$6. \quad \sqrt{24} \cdot -3\sqrt{120} = \boxed{-72\sqrt{5}}$$

$$2\sqrt{6} \cdot -6\sqrt{30} = -12\sqrt{180} =$$

$$9. \quad 2\sqrt{\frac{12}{3}} = \boxed{4}$$

$$\frac{2\sqrt{12}}{\sqrt{3}} = 2\sqrt{4} = 2 \cdot 2 = 4$$

$$12. \quad \sqrt{\frac{4}{28}} = \boxed{\frac{\sqrt{7}}{7}}$$

$$\frac{\sqrt{4}}{\sqrt{28}} = \frac{2}{\sqrt{28}} = \frac{2}{2\sqrt{7}} = \frac{1}{\sqrt{7}} \cdot \frac{\sqrt{7}}{\sqrt{7}} = \frac{\sqrt{7}}{\sqrt{49}}$$

$$15. \quad \frac{-3\sqrt{25}}{\sqrt{625}} = \boxed{-\frac{3}{5}}$$

$$\frac{-3 \cdot 5}{25} = \frac{-15}{25} = -\frac{3}{5}$$