

Key **Answers**

①

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|-------------|----------------------|------------------------|-----------------------|
| 1. $x = 6$ | 2. $x = \frac{6}{5}$ | 3. $x = 26\frac{2}{3}$ | 4. $x = 6\frac{2}{3}$ |
| 5. $x = 30$ | 6. $x = 5$ | 7. $x = 24$ | 8. $x = 8$ |
| 9. $x = 3$ | 10. $x = -12$ | 11. $x = \frac{40}{9}$ | 12. $x = 30$ |
| 13. $x = 6$ | 14. $x = 1.5$ | 15. $x = 2$ | 16. $x = 3$ |
| 17. $x = 9$ | 18. $x = 4$ | 19. $x = -2$ | 20. $x = 1$ |

Key

Answers to Solving Inequalities with variable on both sides.

②

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|-------------------|-----------------------------|
| 1) $x \geq 4$: | 2) $m < 2$: |
| 3) No solution.: | 4) $x \geq 2$: |
| 5) No solution.: | 6) $n > -3$: |
| 7) $m \geq 7$: | 8) $p < -7$: |
| 9) $b > -2$: | 10) { All real numbers. } : |
| 11) $k \leq -6$: | 12) No solution.: |
| 13) $x \leq 1$: | 14) $x > 5$: |
| 15) $n > 3$: | |

③

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|------------------------|---------------------------|------------------------|
| ① $\frac{\sqrt{2}}{2}$ | ② $\frac{2\sqrt{3}}{3}$ | ③ $\frac{\sqrt{7}}{7}$ |
| ④ $3\sqrt{2}$ | ⑤ $3\sqrt{5}$ | ⑥ $6\sqrt{7}$ |
| ⑦ $\frac{1}{9}$ | ⑧ $\frac{2\sqrt{11}}{11}$ | ⑨ $2\sqrt{2}$ |
| ⑩ $\frac{\sqrt{3}}{3}$ | ⑪ $\frac{1}{15}$ | ⑫ $\frac{1}{12}$ |

Key

4

Key

Simplifying Radical Expressions

Simplify.

$$1) \frac{\sqrt{125n}}{5\sqrt{5n}}$$

$$2) \frac{\sqrt{216v}}{6\sqrt{6v}}$$

$$3) \frac{\sqrt{512k^2}}{16k\sqrt{2}}$$

$$4) \frac{\sqrt{512m^3}}{16m\sqrt{2m}}$$

$$5) \frac{\sqrt{216k^4}}{6k^2\sqrt{6}}$$

$$6) \frac{\sqrt{100v^3}}{10v\sqrt{v}}$$

$$7) \frac{\sqrt{80p^3}}{4p\sqrt{5p}}$$

$$8) \frac{\sqrt{45p^2}}{3p\sqrt{5}}$$

$$9) \frac{\sqrt{147m^3n^3}}{7m \cdot n\sqrt{3mn}}$$

$$10) \frac{\sqrt{200m^4n}}{10m^2\sqrt{2n}}$$

$$11) \frac{\sqrt{75x^2y}}{5x\sqrt{3y}}$$

$$12) \frac{\sqrt{64m^3n^3}}{8m \cdot n\sqrt{mn}}$$

$$13) \frac{\sqrt{16u^4v^3}}{4u^2 \cdot v\sqrt{v}}$$

$$14) \frac{\sqrt{28x^3y^3}}{2x \cdot y\sqrt{7xy}}$$