

Dividing Radicals

$$\textcircled{1} \sqrt{\frac{121}{9}} = \boxed{\frac{11}{3}}$$

$$\textcircled{2} \sqrt{\frac{12}{49}} = \boxed{\frac{2\sqrt{3}}{7}}$$

$$\textcircled{3} \sqrt{\frac{12}{75}} = \sqrt{\frac{4}{25}} = \boxed{\frac{2}{5}}$$

$$\textcircled{4} \sqrt{\frac{40}{5}} = \sqrt{8} = \boxed{2\sqrt{2}}$$

or

$$\frac{2\sqrt{3}}{5\sqrt{3}}$$

The denominator must be a rational #.

$$\textcircled{5} \frac{3}{\sqrt{7}} \cdot \frac{\sqrt{7}}{\sqrt{7}} = \boxed{\frac{3\sqrt{7}}{7}}$$

$$\textcircled{6} \frac{5}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \boxed{\frac{5\sqrt{3}}{3}}$$

↑
equal to 1

$$\textcircled{7} \frac{\sqrt{5}}{\sqrt{10}} = \sqrt{\frac{1}{2}} = \frac{\sqrt{1}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \boxed{\frac{\sqrt{2}}{2}}$$

same

$$\textcircled{8} \frac{3\sqrt{81x^3}}{\sqrt{18x}} = \frac{3\sqrt{x}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{18\sqrt{3x}}{3} = \boxed{\sqrt{3x}}$$

Dividing Radicals
Simplify.

Name: _____

1. $\sqrt{\frac{49}{4}}$

2. $\sqrt{\frac{20}{81}}$

3. $\sqrt{\frac{75}{x^4}}$

4. $\sqrt{\frac{64}{36a^2}}$

5. $\sqrt{\frac{54}{24}}$

6. $-\sqrt{\frac{60}{5}}$

7. $\sqrt{\frac{3x^3}{16x}}$

8. $\sqrt{\frac{22a^5}{200a}}$

9. $\frac{5}{\sqrt{2}}$

10. $\frac{4}{\sqrt{7}}$

11. $\frac{20}{\sqrt{5}}$

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

13. $\sqrt{\frac{1}{18}}$

14. $\frac{5}{\sqrt{40}}$

15. $-\frac{9}{2\sqrt{45}}$

16. $\sqrt{\frac{8}{3}}$

17. $\sqrt{\frac{7}{2t}}$

18. $\frac{5\sqrt{3}}{\sqrt{10}}$

19. $\frac{2\sqrt{11t^2}}{\sqrt{6t}}$

20. $\frac{10\sqrt{6}}{\sqrt{15}}$