

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

**Simplify.**

1)  $\frac{\sqrt{18x^4}}{3x^2\sqrt{2}}$

2)  $\frac{\sqrt{75n}}{5\sqrt{3n}}$

3)  $\frac{\sqrt[4]{128x^8y^2}}{2x^2\sqrt[4]{8y^2}}$

4)  $\frac{\sqrt[4]{48a^8b^7}}{2a^2b\sqrt[4]{3b^3}}$

5)  $\frac{\sqrt[5]{224u^6v^7}}{2uv\sqrt[5]{7uv^2}}$

6)  $\frac{\sqrt[3]{256x^8y}}{4x^2\sqrt[3]{4x^2y}}$

**Simplify. Use absolute value signs when necessary.**

7)  $\frac{\sqrt{294k^2}}{7|k|\sqrt{6}}$

8)  $\frac{\sqrt{252x^5}}{6x^2\sqrt{7x}}$

**Simplify.**

9)  $\frac{(81n^6)^{\frac{1}{2}}}{9n^3}$

10)  $\frac{(16n^{12})^{\frac{1}{4}}}{2n^3}$

11)  $\frac{(36k^2)^{\frac{3}{2}}}{216k^3}$

12)  $\frac{(x^8)^{\frac{1}{2}}}{x^4}$

**Simplify. Your answer should contain only positive exponents.**

13)  $x^2y^{-2} \cdot 2x^{-1} \frac{2x}{y^2}$

14)  $4b^{-1} \cdot 2a^{-2}b^{-1} \frac{8}{b^2a^2}$

15)  $(uv^{-1})^3 \frac{u^3}{v^3}$

16)  $(x^4y^{-4})^{-3} \frac{y^{12}}{x^{12}}$

17)  $\frac{2a^{-1}b^3}{4ab^4} \frac{1}{2a^2b}$

18)  $\frac{2y^4}{4xy^2} \frac{y^2}{2x}$