

## Assignment 4: Simplifying and Multiplying Rational Expressions

**Simplify each expression.**

1)  $\frac{8x^4}{10x^2}$

2)  $\frac{6n^4}{10n^2}$

3)  $\frac{8v^5}{8v^4}$

4)  $\frac{15b}{10b^2}$

5)  $\frac{8n^5}{16n^4}$

6)  $\frac{25a^2}{15a^3}$

7)  $\frac{8k^4}{12k^6}$

8)  $\frac{15x^4}{9x^5}$

9)  $\frac{20p^2}{10p^3}$

10)  $\frac{25n}{20n^4}$

11)  $\frac{3}{8r} \cdot \frac{5}{8r}$

12)  $\frac{10}{3} \cdot \frac{2}{9m}$

13)  $\frac{3x}{9} \cdot \frac{8x^2}{8}$

14)  $\frac{6}{4b} \cdot \frac{6}{2}$

15)  $\frac{4}{5n^4} \cdot \frac{10}{8n^2}$

16)  $\frac{9x^4}{10} \cdot \frac{5x}{8}$

17)  $\frac{8r^3}{2} \cdot \frac{10r}{8}$

18)  $\frac{5}{2} \cdot \frac{4}{7n}$

## Assignment 4: Simplifying and Multiplying Rational Expressions

Simplify each expression.

$$1) \frac{8x^4}{10x^2} \cdot \frac{4x^2}{5}$$

$$2) \frac{6n^4}{10n^2} \cdot \frac{3n^2}{5}$$

$$3) \frac{8v^5}{8v^4} \cdot v$$

$$4) \frac{15b}{10b^2} \cdot \frac{3}{2b}$$

$$5) \frac{8n^5}{16n^4} \cdot \frac{n}{2}$$

$$6) \frac{25a^2}{15a^3} \cdot \frac{5}{3a}$$

$$7) \frac{8k^4}{12k^6} \cdot \frac{2}{3k^2}$$

$$8) \frac{15x^4}{9x^5} \cdot \frac{5}{3x}$$

$$9) \frac{20p^2}{10p^3} \cdot \frac{2}{p}$$

$$10) \frac{25n}{20n^4} \cdot \frac{5}{4n^3}$$

$$11) \frac{3}{8r} \cdot \frac{5}{8r} \cdot \frac{15}{64r^2}$$

$$12) \frac{10}{3} \cdot \frac{2}{9m} \cdot \frac{20}{27m}$$

$$13) \frac{3x}{9} \cdot \frac{8x^2}{8} \cdot \frac{x^3}{3}$$

$$14) \frac{6}{4b} \cdot \frac{6}{2} \cdot \frac{9}{2b}$$

$$15) \frac{4}{5n^4} \cdot \frac{10}{8n^2} \cdot \frac{1}{n^6}$$

$$16) \frac{9x^4}{10} \cdot \frac{5x}{8} \cdot \frac{9x^5}{16}$$

$$17) \frac{8r^3}{2} \cdot \frac{10r}{8} \cdot 5r^4$$

$$18) \frac{5}{2} \cdot \frac{4}{7n} \cdot \frac{10}{7n}$$