

## 13- Dividing Exponents

Example:

Write  $\frac{8ab^2}{12a^2b}$  in simplest form.

$$\frac{8ab^2}{12a^2b} = \frac{2 \cdot 2 \cdot 2 \cdot a \cdot b \cdot b}{2 \cdot 2 \cdot 3 \cdot a \cdot a \cdot b}$$

Write the product of prime factors.

$$= \frac{2 \cdot 2 \cdot 2 \cdot a \cdot b \cdot b}{2 \cdot 2 \cdot 3 \cdot a \cdot a \cdot b}$$

Divide the numerator and denominator by the common factors.

$$= \frac{2b}{3a}$$

Remove the common factors.

Write in simplest form.

1.  $\frac{8}{22} =$  \_\_\_\_\_

2.  $\frac{16}{24} =$  \_\_\_\_\_

3.  $\frac{9}{21} =$  \_\_\_\_\_

4.  $\frac{20h}{24h} =$  \_\_\_\_\_ = \_\_\_\_\_

5.  $\frac{30a^2}{36ab} =$  \_\_\_\_\_ = \_\_\_\_\_

6.  $\frac{4x^2y}{14xy^2} =$  \_\_\_\_\_ = \_\_\_\_\_

7.  $\frac{18s^3t^2}{8st^2} =$  \_\_\_\_\_ = \_\_\_\_\_

8.  $\frac{10pqr}{5p^2q} =$  \_\_\_\_\_ = \_\_\_\_\_

9.  $\frac{11gh^3}{gh} =$  \_\_\_\_\_ = \_\_\_\_\_

10.  $\frac{2m^2n}{16m^3n^2} =$  \_\_\_\_\_ = \_\_\_\_\_