

Reteaching 4-4 Simplifying Fractions

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

$$\begin{aligned} \frac{8ab^2}{12a^2b} &= \frac{2 \cdot 2 \cdot 2 \cdot a \cdot b \cdot b}{2 \cdot 2 \cdot 3 \cdot a \cdot a \cdot b} \\ &= \frac{\overset{1}{2} \cdot \overset{1}{2} \cdot \overset{1}{2} \cdot \overset{1}{a} \cdot b \cdot \overset{1}{b}}{\overset{1}{2} \cdot \overset{1}{2} \cdot \overset{1}{3} \cdot \overset{1}{a} \cdot \overset{1}{a} \cdot \overset{1}{b}} \\ &= \frac{2b}{3a} \end{aligned}$$

Write as a product of prime factors.

Divide the numerator and denominator by the common factors.

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