

Name : _____

Score : _____

Teacher : _____

Date : _____

Multiplying and Dividing Rational Expressions

Simplify each expression.

1) $(g - 7) \cdot \frac{6g}{g^2 - 6g - 7}$

6) $\frac{8(b - 3)}{3} \cdot \frac{10b}{8(b - 3)}$

2) $\frac{4x - 4}{x^2 + 13x + 40} \cdot \frac{x + 8}{4x - 4}$

7) $\frac{7}{10} \cdot \frac{11}{3}$

3) $\frac{2r^2}{8} \div \frac{9r}{12}$

8) $\frac{40q + 20}{3} \div \frac{96q + 48}{3q}$

4) $\frac{h^2 + 14h + 45}{h + 9} \cdot \frac{h + 5}{7}$

9) $\frac{2(s + 6)}{(s + 6)} \cdot \frac{11s}{2(s - 3)}$

5) $\frac{p^2 + p - 72}{p^2 - 16p + 63} \cdot \frac{1}{p - 8}$

10) $\frac{(k - 12)(k + 10)}{k - 12} \cdot \frac{5}{(k - 2)(k - 12)}$



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Multiplying and Dividing Rational Expressions

Simplify each expression.

$$1) (g - 7) \cdot \frac{6g}{g^2 - 6g - 7}$$

$$\frac{6g}{g + 1}$$

$$2) \frac{4x - 4}{x^2 + 13x + 40} \cdot \frac{x + 8}{4x - 4}$$

$$\frac{1}{x + 5}$$

$$3) \frac{2r^2}{8} \div \frac{9r}{12}$$

$$\frac{r}{3}$$

$$4) \frac{h^2 + 14h + 45}{h + 9} \cdot \frac{h + 5}{7}$$

$$\frac{(h + 5)^2}{7}$$

$$5) \frac{p^2 + p - 72}{p^2 - 16p + 63} \cdot \frac{1}{p - 8}$$

$$\frac{p + 9}{(p - 7)(p - 9)}$$

$$6) \frac{8(b - 3)}{3} \cdot \frac{10b}{8(b - 3)}$$

$$\frac{10b}{3}$$

$$7) \frac{7}{10} \cdot \frac{11}{3}$$

$$\frac{77}{30}$$

$$8) \frac{40q + 20}{3} \div \frac{96q + 48}{3q}$$

$$\frac{5q}{12}$$

$$9) \frac{2(s + 6)}{(s + 6)} \cdot \frac{11s}{2(s - 3)}$$

$$\frac{11s}{s - 3}$$

$$10) \frac{(k - 12)(k + 10)}{k - 12} \cdot \frac{5}{(k - 2)(k - 12)}$$

$$\frac{5(k + 10)}{(k - 2)(k - 12)}$$

