

Name : _____

Score : _____

Teacher : _____

Date : _____

Multiplying Rational Expressions

Simplify each expression.

1) $\frac{3}{2} \cdot \frac{6}{9}$

6) $\frac{q^2 + 19q + 88}{q + 8} \cdot \frac{q + 11}{2}$

2) $\frac{h^2 + 14h + 24}{h + 2} \cdot \frac{h + 12}{11}$

7) $\frac{12d - 12}{d^2 + 13d + 30} \cdot \frac{d + 3}{12d - 12}$

3) $\frac{96g^2 + 96g}{56g^2 + 56g} \cdot \frac{9g}{9}$

8) $\frac{(c - 2)(c + 12)}{c - 2} \cdot \frac{3}{(c + 6)(c - 2)}$

4) $\frac{10(b + 2)}{2} \cdot \frac{11b}{10(b + 2)}$

9) $\frac{11y(y - 6)}{(y - 6)(y + 9)} \cdot \frac{y + 9}{(y + 12)(y + 2)}$

5) $\frac{12(x - 4)}{(x - 4)} \cdot \frac{9x}{12(x - 10)}$

10) $\frac{12}{7} \cdot \frac{8}{11p}$



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Multiplying Rational Expressions

Simplify each expression.

$$1) \quad \frac{3}{2} \cdot \frac{6}{9}$$

$$\frac{1}{1}$$

$$2) \quad \frac{h^2 + 14h + 24}{h + 2} \cdot \frac{h + 12}{11}$$

$$\frac{(h + 12)^2}{11}$$

$$3) \quad \frac{96g^2 + 96g}{56g^2 + 56g} \cdot \frac{9g}{9}$$

$$\frac{12g}{7}$$

$$4) \quad \frac{10(b + 2)}{2} \cdot \frac{11b}{10(b + 2)}$$

$$\frac{11b}{2}$$

$$5) \quad \frac{12(x - 4)}{(x - 4)} \cdot \frac{9x}{12(x - 10)}$$

$$\frac{9x}{x - 10}$$

$$6) \quad \frac{q^2 + 19q + 88}{q + 8} \cdot \frac{q + 11}{2}$$

$$\frac{(q + 11)^2}{2}$$

$$7) \quad \frac{12d - 12}{d^2 + 13d + 30} \cdot \frac{d + 3}{12d - 12}$$

$$\frac{1}{d + 10}$$

$$8) \quad \frac{(c - 2)(c + 12)}{c - 2} \cdot \frac{3}{(c + 6)(c - 2)}$$

$$\frac{3(c + 12)}{(c + 6)(c - 2)}$$

$$9) \quad \frac{11y(y - 6)}{(y - 6)(y + 9)} \cdot \frac{y + 9}{(y + 12)(y + 2)}$$

$$\frac{11y}{(y + 12)(y + 2)}$$

$$10) \quad \frac{12}{7} \cdot \frac{8}{11p}$$

$$\frac{96}{77p}$$

