

Name : _____ Score : _____

Teacher : _____ Date : _____

Multiplying Rational Expressions

Simplify each expression.

$$1) \frac{18n^2 - 18n}{36n^2 - 36n} \cdot \frac{8n}{8}$$

$$6) \frac{12(q - 3)}{3} \cdot \frac{4q}{12(q - 3)}$$

$$2) \frac{10}{(c - 4)} \cdot \frac{7c - 77}{(c - 11)}$$

$$7) \frac{4}{2} \cdot \frac{9}{10}$$

$$3) \frac{6y(y + 8)}{(y + 8)(y - 9)} \cdot \frac{y - 9}{(y + 5)(y - 2)}$$

$$8) \frac{11(k + 5)}{(k + 5)} \cdot \frac{10k}{11(k + 7)}$$

$$4) \frac{10(z - 6)}{6} \cdot \frac{4z}{10(z - 6)}$$

$$9) \frac{s^2 + 15s + 56}{s + 7} \cdot \frac{s + 8}{6}$$

$$5) \frac{24b^2 - 24b}{80b^2 - 80b} \cdot \frac{4b}{4}$$

$$10) \frac{(x - 2)(x + 7)}{x - 2} \cdot \frac{4}{(x + 12)(x - 2)}$$

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$$1) \frac{18n^2 - 18n}{36n^2 - 36n} \cdot \frac{8n}{8}$$

$$\frac{n}{2}$$

$$6) \frac{12(q - 3)}{3} \cdot \frac{4q}{12(q - 3)}$$

$$\frac{4q}{3}$$

$$2) \frac{10}{(c - 4)} \cdot \frac{7c - 77}{(c - 11)}$$

$$\frac{70}{c - 4}$$

$$7) \frac{4}{2} \cdot \frac{9}{10}$$

$$\frac{9}{5}$$

$$3) \frac{6y(y + 8)}{(y + 8)(y - 9)} \cdot \frac{y - 9}{(y + 5)(y - 2)}$$

$$\frac{6y}{(y + 5)(y - 2)}$$

$$8) \frac{11(k + 5)}{(k + 5)} \cdot \frac{10k}{11(k + 7)}$$

$$\frac{10k}{k + 7}$$

$$4) \frac{10(z - 6)}{6} \cdot \frac{4z}{10(z - 6)}$$

$$\frac{2z}{3}$$

$$9) \frac{s^2 + 15s + 56}{s + 7} \cdot \frac{s + 8}{6}$$

$$\frac{(s + 8)^2}{6}$$

$$5) \frac{24b^2 - 24b}{80b^2 - 80b} \cdot \frac{4b}{4}$$

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

$$10) \frac{(x - 2)(x + 7)}{x - 2} \cdot \frac{4}{(x + 12)(x - 2)}$$

$$\frac{4(x + 7)}{(x + 12)(x - 2)}$$