Rational × ÷ — Multiplying

Name: _____ Date: _____

Multiply and cancel. Write each answer as one fraction.

1. $\frac{(x+3)}{(x+1)} \times \frac{(x+1)}{(x-5)}$

   $(x + 1)$ cancels

   $\frac{x+3}{x-5}$

   $x \neq -1, 5$

2. $\frac{(x+4)}{(x+3)} \times \frac{(x+3)}{(x+8)}$

3. $\frac{(x-6)}{(x-5)} \times \frac{(x-5)}{(x-2)}$

4. $\frac{(x+9)}{x} \times \frac{x}{(x-2)}$

5. $\frac{(x-3)}{(x-6)} \times \frac{(x-6)}{(x+8)}$

6. $\frac{(x-7)}{(x-3)} \times \frac{(x-3)}{x}$

7. $\frac{(x+2)}{(x-3)} \times \frac{(x-3)}{(x-2)}$

8. $\frac{(x+2)}{(x+5)} \times \frac{(x+5)}{(x+6)}$

Rational × ÷ · Multiplying — Answer key

1. $\frac{x+3}{x+1} \times \frac{x+1}{x-5} = \frac{x+3}{x-5}$ ($x \neq -1, 5$)

2. $\frac{x+4}{x+3} \times \frac{x+3}{x+8} = \frac{x+4}{x+8}$ ($x \neq -8, -3$)

3. $\frac{x-6}{x-5} \times \frac{x-5}{x-2} = \frac{x-6}{x-2}$ ($x \neq 2, 5$)

4. $(x + 9)/x \times x/(x - 2) = \frac{x+9}{x-2}$ ($x \neq 0, 2$)

5. $\frac{x-3}{x-6} \times \frac{x-6}{x+8} = \frac{x-3}{x+8}$ ($x \neq -8, 6$)

6. $\frac{x-7}{x-3} \times (x - 3)/x = (x - 7) / x$ ($x \neq 0, 3$)

7. $\frac{x+2}{x-3} \times \frac{x-3}{x-2} = \frac{x+2}{x-2}$ ($x \neq 2, 3$)

8. $\frac{x+2}{x+5} \times \frac{x+5}{x+6} = \frac{x+2}{x+6}$ ($x \neq -6, -5$)