Multiplying Rational Expressions

Version 1

Name: _____ **Date**: _____ **Score**: _____

Direction: Simplify by multiplying the following rational expressions. Show all your work in the space provided.

1) $\frac{x^2+x-30}{x-4}\cdot\frac{x-4}{x-5}$	2) $\frac{x^2+13x+40}{x^2+10x+25}\cdot\frac{x+5}{x-4}$
3) $\frac{35x+25}{5}\cdot\frac{x+5}{42x+30}$	4) $\frac{49x+14}{35x^2+10x}\cdot\frac{5x}{6}$
5) $\frac{2x^2-10x-28}{x^2+6x+9}\cdot\frac{3x+9}{2x-14}$	6) $\frac{-3x^2-6x-3}{x^2-x-6}\cdot\frac{x+2}{-2x-2}$

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Direction: Simplify by multiplying the following rational expressions. Show all your work in the space provided.

1) $\dfrac{x^2+x-30}{x-4}\cdot\dfrac{x-4}{x-5}$

$x+6$

2) $\dfrac{x^2+13x+40}{x^2+10x+25}\cdot\dfrac{x+5}{x-4}$

$\dfrac{x+8}{x-4}$

3) $\dfrac{35x+25}{5}\cdot\dfrac{x+5}{42x+30}$

$\dfrac{x+5}{6}$

4) $\dfrac{49x+14}{35x^2+10x}\cdot\dfrac{5x}{6}$

$\dfrac{7}{6}$

5) $\dfrac{2x^2-10x-28}{x^2+6x+9}\cdot\dfrac{3x+9}{2x-14}$

$\dfrac{3x+6}{x+3}$

6) $\dfrac{-3x^2-6x-3}{x^2-x-6}\cdot\dfrac{x+2}{-2x-2}$

$\dfrac{3x+3}{2x-6}$