

Date: _____

Name: Corrections

Block: _____

INTRO MATH 11 : RATIONAL EXPRESSIONS-version c.
Supplemental Test.

1. Indicate which value(s) must not be substituted into the following expressions:

b.	$\frac{x}{2x-4}$ $2x-4 \neq 0$ $x \neq 2$	d.	$\frac{x-1}{\frac{x+7}{\frac{x+1}{x-4}}}$ $x \neq -7, -1, 4$
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SIMPLIFY: SHOW SOME WORK.

2.	$\frac{12x^2 + 27x - 9}{3x} = \frac{3(4x^2 + 9x - 3)}{3x} = \frac{4x^2 + 9x - 3}{x}$ {Box is <u>not</u> factorable}
3.	$\frac{x+y}{12x+12y} = \frac{\cancel{(x+y)}}{12\cancel{(x+y)}} = \frac{1}{12}$
4.	$\frac{x^3 + 2x^2}{x+2} = \frac{x^2(x+2)}{(x+2)} = x^2$
5.	$\frac{3x^2 + 3x - 6}{3x-2} = \frac{3(x^2 + x - 2)}{3x-2}$
6.	$\frac{x^2 + 12x + 20}{x+2} = \frac{(x+10)\cancel{(x+2)}}{\cancel{(x+2)}} = x+10$
7.	$\frac{18a^2 - 8b^2}{6a-4b} = \frac{2(9a^2 - 4b^2)}{2(3a-2b)} = \frac{(3a-2b)(3a+2b)}{(3a-2b)} = 3a+2b$
8.	$\frac{y^2 - y - 6}{y^2 - 2y - 8} = \frac{(y-3)\cancel{(y+2)}}{\cancel{(y-4)}\cancel{(y+2)}} = \frac{y-3}{y-4}$

SIMPLIFY (Multiplying & Dividing Questions).

1.	$\frac{4a^3(r+5)}{r^2-25} \times \frac{(r-5)}{2a^2} = \frac{4a^3(r+5)(r-5)}{(r+5)(r-5)} = 4a^3$
2.	$\frac{(x^2+2x-15)}{(x^2-9)} \left(\frac{x+3}{x^2-25} \right) = \frac{(x+5)(x-3)(x+3)}{(x+3)(x-3)(x+5)(x-5)} = \frac{1}{x-5}$
3.	$\frac{2x+4y}{3x-9} + \frac{(4x+8y)}{9-3x} = \frac{2(x+2y)}{3(x-3)} + \frac{3(3-x)}{4(x+2y)} = \frac{-1}{2}$
4.	$\frac{(a^2+3a-18)}{(x^2-9)} + \frac{(a+6)}{(2a+6)} = \frac{(a+6)(a-3)}{(x+3)(x-3)} \cdot \frac{2(a+3)}{(a+6)} = 2$
5.	$\frac{a^2+a-6}{a^2+11a+30} + \frac{a^2+2a-3}{a^2+5a-6} = \frac{(a+3)(a-2)}{(a+6)(a+5)} \cdot \frac{(a+6)(a-1)}{(a+3)(a-1)} = \frac{a-2}{a+5}$

SIMPLIFY: ADDITION AND SUBTRACTION.

1.	$\frac{7}{3n} - \frac{5}{6y} - \frac{3}{4y} = \frac{28y - 10n - 9n}{12ny} = \frac{28y - 19n}{12ny}$
2.	$\frac{8p+3}{6} - \frac{5p+2}{4} = \frac{16p+6 - 15p-6}{12} = \frac{p}{12}$
3.	$\frac{2m+9}{6a} - \frac{4-m}{5} = \frac{10m+45 - 24a+6am}{30a}$
4.	$\frac{4}{5a^2} + \frac{3}{2a} - \frac{1}{4} = \frac{16 + 30a - 5a^2}{20a^2}$
5.	$\frac{x^2+x}{x-3} - \frac{7x+6}{x-3} = \frac{x^2 - 6x - 6}{x-3}$