Lesson Title 7.3 Creating Equivalent Rational Expressions DAY THREE NOTES Date _____ B2A2

## OBJECTIVE 3: Writing Equivalent Rational Expressions

STEPS:

1. Determine what is missing for your denominator to match the new denominator
2. Multiply your numerator by what is missing

TASK 1: Write each rational expression as an equivalent rational expression with the given denominator.

a) $\frac{4b}{9a} = \frac{?}{27a^2b}$

$3 \cdot 3 \cdot a \quad 3 \cdot 3 \cdot 3aab$

$? = 4b \text{ (missing)}$

$= 4b \cdot 3ab$

$= \boxed{12ab^2}$

b) $\frac{7x}{2x+5} = \frac{?}{6x+15}$

$3(2x+5)$

$? = 7x \text{ (missing)}$

$= 7x(3)$

$= \boxed{21x}$

c) $\frac{3x}{5y} = \frac{?}{35xy^2}$

$5 \cdot 7xyy$

$? = 3x \text{ (missing)}$

$= 3x(7xy)$

$= \boxed{21x^2y}$

d) $\frac{9x}{4x+7} = \frac{?}{8x+14}$

$2(4x+7)$

$? = 9x \text{ (missing)}$

$= 9(x)(2)$

$= \boxed{18x}$

TASK 2: Write the rational expression as an equivalent rational expression with the given denominator.

a) $\frac{5}{x^2-4} = \frac{?}{(x-2)(x+2)(x-4)}$

$(x+2)(x-2)$

$?=5$ (missing)

$= 5(x-4)$

or

$5x-20$

b) $\frac{3}{x^2-2x-15} = \frac{?}{(x-2)(x+3)(x-5)}$

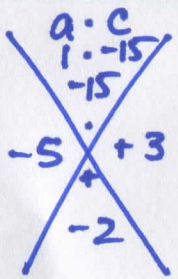
$(x-5)(x+3)$

$?= 3$ (missing)

$= 3(x-2)$

or

$3x-6$




Common Mistakes:

+ or − means (all or nothing)

**Still need help with:**