

Simplify:

$$\frac{4 + \frac{2}{x}}{\frac{9}{y^2} + x} \cdot \frac{xy^2}{xy^2} = \frac{4xy^2 + 2y^2}{9x + x^2y^2}$$

Simplify:

$$\frac{\frac{8}{x^3} - \frac{7}{y^2}}{\frac{3}{x^2y} + \frac{5}{xy^3}} \cdot \frac{x^3y^3}{x^3y^3} = \frac{8y^3 - 7x^3y}{3xy^2 + 5x^2}$$

Simplify:

$$\frac{6 + \frac{2}{x-5}}{\frac{1}{x-5} - 8} \cdot \frac{x-5}{x-5} = \frac{6x-30+2}{1-8x+40} = \frac{6x-28}{41-8x}$$

Simplify:

$$\frac{\frac{3}{x+2}}{\frac{1}{x+5} + \frac{10x}{x^2+7x+10}} \cdot \frac{(x+2)(x+5)}{(x+2)(x+5)} = \frac{3(x+5)}{1(x+2)+10x} = \frac{3x+15}{11x+2}$$

Simplify:

$$\frac{\frac{4x}{x^2 + 8x + 7} \cdot \frac{(x+1)(x-1)(x+7)}{(x+1)(x-1)(x+7)}}{\frac{5x}{x^2 + 6x - 7} + \frac{6}{x^2 - 1}}$$

$$\frac{4x(x-1)}{5x(x+1) + 6(x+7)}$$

$$\frac{4x^2 - 4x}{5x^2 + 5x + 6x + 42}$$

$$\frac{4x^2 - 4x}{5x^2 + 11x + 42}$$

Hwk #35:

Due Wednesday

Pages 517-518

Problems 12, 14, 15, 19, 21, 44, 47, 48

Is this relationship Direct Variation, Inverse Variation, or neither?

X	Y
-16	-3
-10	-4.8
-5	-9.6
-1	-48
1.2	40
4	12
15	3.2
24	2

$\frac{Y}{X}$
48
48
48
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48
48
48

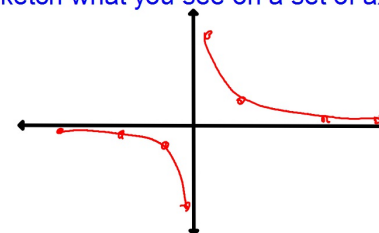
constant product
means this relationship
is Inverse Variation

Graph of Inverse Variation:

Using a graphing calculator enter the following data from an Inverse Variation into lists and make a scatter plot.

X	Y
-16	-3
-10	-4.8
-5	-9.6
-1	-48
1.2	40
4	12
15	3.2
24	2

Sketch what you see on a set of axes:



Describe what this graph looks like.