

Solve each rational equation.

1.  $\frac{2}{x^2 + 3x - 10} = \frac{6}{x^2 - 3x + 2}$

2.  $\frac{2x}{x-2} - \frac{x}{x-6} = \frac{24}{x^2 - 8x + 12}$

3. Find this sum.  $\frac{4}{x^2 - 64} - \frac{5x}{x^2 + 11x + 24}$

4. Find this quotient.  $\frac{x^2 + 2x - 24}{6x^4 + 36x^3} \div \frac{x^2 - x - 12}{10x^2 + 20x}$

5. Simplify.

$$\frac{\frac{5x}{y^3} + \frac{7}{4x^2y}}{\frac{8}{x^3y^2} - \frac{x}{10y^4}}$$

6. Does each table represent Direct Variation, Inverse Variation, or neither? If there is a variation relationship write a variation equation and find the value of  $x$  when  $y = 70$ .

A

X	Y
16	15
25	9.6
-6	-40
125	1.92
150	1.6

EQ:

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$x =$

B

X	Y
-5	32
-2	12.8
4	-25.6
18	-115.2
23	-147.2

EQ:

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$x =$