

Algebra II
Auch

Section 8.5
Date:

Objectives

- Solve rational equations and inequalities

Vocabulary

- rational equations
- extraneous solution
- rational equality

Example 1

Solve the equation

$$x + \frac{8}{x} = 6$$

Try it!

a) $\frac{10}{3} = \frac{4}{x} + 2$

b) $\frac{6}{x} + \frac{5}{4} = -\frac{7}{4}$

Example 2**Solve each equation**

a)
$$\frac{3x}{x-3} = \frac{2x+3}{x-3}$$

b)
$$\frac{2x-9}{x-7} + \frac{x}{2} = \frac{5}{x-7}$$

Try it!**Solve each equation**

a)
$$\frac{16}{x^2-16} = \frac{2}{x-4}$$

b)
$$\frac{x}{x-1} = \frac{x}{x-1} + \frac{x}{6}$$