

MasterMath

Name _____

Solving Rational Equations

Date _____

1. Solve for x using Cross Products. There may be either one or two solutions. Check for extraneous solutions and eliminate them.

$$\frac{5}{x} = \frac{x}{20}$$

x =	10
x =	-10

$$\frac{2}{x} = \frac{10}{x-6}$$

x =	-1.5
x =	

$$\frac{x}{2} = \frac{15}{x+1}$$

x =	5
x =	-6

$$\frac{2x}{x-3} = \frac{24}{x}$$

x =	6
x =	

$$\frac{2x}{5} + \frac{1}{2} = \frac{3}{4}$$

x =	$\frac{5}{8}$
x =	

$$\frac{x+1}{2x+2} = \frac{3}{2x}$$

x =	-1
x =	3

2. Solve for w using LCD. There may be either one or two solutions. Check for extraneous solutions and eliminate them.

$$\frac{5}{w+4} = \frac{w}{w-3} + \frac{2w-27}{w^2+w-12}$$

w =	-4
w =	3

$$\frac{9}{w^2-4} = \frac{4-5w}{w-2}$$

w =	$-\frac{1}{5}$
w =	-1

$$\frac{3}{w-1} - \frac{2}{w-1} = \frac{-6}{w^2-3w+2}$$

w =	-4
w =	

$$\frac{w+2}{w^2+6w-7} = \frac{8}{w^2+3w-4}$$

w =	-6
w =	8