Name : .....

MATH MONKS

Solving Rational Equations

Solve each equation. Also check for extraneous solutions

1 $\frac{1}{x} = \frac{6}{5x} + 1$

2 $1 = \frac{2}{r^2} - \frac{1}{r}$

3 $\frac{2}{3}x - \frac{5}{6} = \frac{3}{4}$

4 $\frac{x}{x-1} - \frac{1}{x-2} = \frac{11}{x^2 - 3x + 2}$

5 $\frac{p-4}{5p} = \frac{1}{5p} + 1$

6 $\frac{x}{x+4} = 3 - \frac{4}{x+4}$

7 $x + \frac{6}{x-3} = \frac{2x}{x-3}$

8 $\frac{1}{x^2} + \frac{4}{x} = \frac{3}{x^2}$

Name : .....

MATH MONKS

Solving Rational Equations

Answers

1 $\frac{1}{x} = \frac{6}{5x} + 1$

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

2 $1 = \frac{2}{r^2} - \frac{1}{r}$

$\{-2, 1\}$

3 $\frac{2}{3}x - \frac{5}{6} = \frac{3}{4}$

$\{\frac{19}{8}\}$

4 $\frac{x}{x-1} - \frac{1}{x-2} = \frac{11}{x^2 - 3x + 2}$

$\{5, -2\}$

5 $\frac{p-4}{5p} = \frac{1}{5p} + 1$

$\{-\frac{5}{4}\}$

6 $\frac{x}{x+4} = 3 - \frac{4}{x+4}$

$\{-4\}$

7 $x + \frac{6}{x-3} = \frac{2x}{x-3}$

$\{2, 3\}$

8 $\frac{1}{x^2} + \frac{4}{x} = \frac{3}{x^2}$

$\{\frac{1}{2}\}$