

Happy Hug Day!

Recommended 8 hugs per day :)

- Park your phones
- Reminder: Unit 3 Test Friday

Honors Pre-Calculus

Name _____ 2/12/19

Solving Rational Equations

Solve each equation. Remember to check for **extraneous solutions.**

1) $\frac{1}{2} + \frac{3}{2k} = \frac{3}{2}$

$k = -\frac{3}{2}$

2) $\frac{p-2}{p} + \frac{1}{2p} = \frac{p+4}{2p}$

Fraction = Fraction
Cross multiply

3) $\frac{5m+10}{m+6} - \frac{1}{m+6} = 1$

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

LCD
 x^2+5x
 $x(x+5)$

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

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

$(1)x^2+5x = x(3x+1)$
 $x^2+5x = 3x^2+x$
 $\underline{-3x^2 - x}$
 $0 = 2x^2 - 4x$

5) $\frac{1}{m-4} - \frac{m+4}{m-6} = \frac{m+6}{m^2-10m+24}$

6) $\frac{2}{3b^3+2b^2} = \frac{1}{3b^3+2b^2} + \frac{1}{b}$

$0 = 2x^2 - 4x$

$0 = 2x(x-2)$

$2x = 0$

$x-2 = 0$

~~$x = 0$~~

$x = 2$

extraneous solution