

ML#3: Solving Equations and Inequalities with Decimals and Fractions (Math 7 Plus – Unit 4)

How do we solve equations?

- Try to solve the problems below using what you know about solving equations, decimals and fractions.

1) $-2k + 4.3 = -13.92$

2) $-\frac{6}{7}m + 5 = 6\frac{1}{7}$

TRY THESE

1. $\frac{2}{3}x - 4 = -16$

2. $-\frac{7}{10}k + 14 = -21$

3. $2m + 14.43 = -18.89$

4. $\frac{2}{3}(m - 6) = 3$

5. $-\frac{1}{3}(x - 9) = -1$

6. Cell phone plan is \$20 per month plus \$0.15 per minute. Your bill is \$37.25, write an equation and solve to find out how many minutes you used your phone for the month.

How do we solve inequalities?

- Try to solve the problems below using what you know about solving inequalities, decimals and fractions.

1) Solve and Graph: $-0.5x - 5 < -1.5$

2) Solve and Graph: $-\frac{3}{4}x + 1\frac{1}{4} \leq -10$

TRY THESE

- Solve and Graph

1) $\frac{2}{3}x + \left(-\frac{1}{5}\right) > -\frac{3}{5}$

2) $3.8m - 29.17 < 16.43$

3) $-\frac{2}{3}d \leq \frac{5}{8}$

- 4) Steven has \$25 dollars to spend. He spent \$10.81, including tax, to buy a new DVD. He needs to save \$10.00 but he wants to buy a snack. If peanuts cost \$0.38 per package including tax, what is the maximum number of packages that Steven can buy? Graph your solution on a number line.