Precalculus Algebra Review Worksheet #5 Linear Equations   Selected Solutions

Solve each of the following equations. Express the solution in simplest form. Show all of your work neatly organized.

4. $\dfrac{2x}{3} + \dfrac{1}{6} = \dfrac{5x}{12} - \dfrac{3}{4}$

multiply both sides by 12

$8x + 2 = 5x - 9$

$3x = -11$

$x = -11/3$

8. $3(5x - 1) + 2(3x + 5) = 7$

$15x - 3 + 6x + 10 = 7$

$21x + 7 = 7$

$21x = 0$

$x = 0$

12. $.5(7x - 2) - .12(3x - 4) = 2x - 1$

multiply both sides by 100

$50(7x - 2) - 12(3x - 4) = 100(2x - 1)$

$350x - 100 - 36x + 48 = 200x - 100$

$314x - 52 = 200x - 100$

$114x = -48$

$x = -8/19$

16. $\dfrac{2}{3}(5x + 1) - \dfrac{1}{2}(2x - 3) = 1$

multiply both sides by 6

$4(5x + 1) - 3(2x - 3) = 6$

$20x + 4 - 6x + 9 = 6$

$14x + 13 = 6$

$14x = -7$

$x = -1/2$