

Name Key
 per.

More Equations with Fractions

1. $\frac{1}{6}x + \frac{2}{3}x = 5$
 $(18)\left(\frac{1}{6}x + \frac{2}{3}x\right) = 5(18)$
 $\left(\frac{18}{1}\right)\left(\frac{1}{6}x\right) + \left(\frac{18}{1}\right)\left(\frac{2}{3}x\right) = 90$
 $3x + 12x = 90$
 $\frac{15x}{15} = \frac{90}{15}$
 $x = 6$

2. $\frac{x}{2} - 4 = \frac{x}{3}$
 $(6)\left(\frac{x}{2} - 4\right) = \frac{x}{3}(6)$
 $3x - 24 = 2x$
 $-3x$ $-3x$
 $\frac{-1}{-1} - 24 = -x(-1)$
 $24 = x$

3. $\frac{2}{3}x = \left(x - \frac{10}{3}\right)(3)$
 $2x = 3x - 10$
 $-3x$ $-3x$
 $(-1) -x = -10(-1)$
 $x = 10$

4. $\frac{x}{2} + \frac{4x}{3} = 2x - 1.5$
 $6\left(\frac{x}{2} + \frac{4x}{3}\right) = 6(2x - 1.5)$
 $3x + 8x = 12x - 9$
 $11x = 12x - 9$
 $-12x$ $-12x$
 $(-1) -x = -9(-1)$
 $x = 9$

5. $0.2x + x = 30$
 $10(0.2x + x) = 30(10)$
 $2x + 10x = 300$
 $\frac{12x}{12} = \frac{300}{12}$
 $x = 25$

6. $\frac{1}{6}x + \frac{2}{3} = \frac{1}{4}x - \frac{1}{3}$
 $12\left(\frac{1}{6}x + \frac{2}{3}\right) = 12\left(\frac{1}{4}x - \frac{1}{3}\right)$
 $2x + 8 = 3x - 4$
 $-2x$ $-2x$
 $8 = x - 4$
 $+4$ $+4$
 $12 = x$

7. $\frac{x}{2} + \frac{x}{3} - 1 = \frac{x}{6} + 3$
 $6\left(\frac{x}{2} + \frac{x}{3} - 1\right) = 6\left(\frac{x}{6} + 3\right)$
 $3x + 2x - 6 = x + 18$
 $5x - 6 = x + 18$
 $-x$ $-x$
 $4x - 6 = 18$
 $+6$ $+6$
 $4x = 24$
 $\frac{4x}{4} = \frac{24}{4}$
 $x = 6$