

100 Equations

Great for you if you are returning to school

Video: <https://youtu.be/bGQ8d35k-SU>

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One Step: do the opposite operation

(Q1.) $x + 8 = 24$

(Q2.) $x - 15 = 27$

(Q3.) $0.2x = 40$

(Q4.) $\frac{x}{7} = 6$

(Q5.) $3x = \frac{1}{5}$

(Q6.) $-8 + x = 11$

(Q7.) $45 = 54 + x$

(Q8.) $-10 = \frac{x}{2}$

(Q9.) $\frac{3}{2} = x + \frac{1}{2}$

(Q10.) $-4x = 26$

(Q11.) $-8 = 11 + x$

(Q12.) $12x = 4$

(Q13.) $x - 0.29 = 2.85$

(Q14.) $\frac{4}{7} = x + \frac{1}{3}$

(Q15.) $-5x = 3.85$

(Q16.) $x - 2 = \frac{3}{8}$

(Q17.) $\frac{2}{3}x = -4$

(Q18.) $6 = -14x$

(Q19.) $\frac{3}{5}x = \frac{9}{10}$

(Q20.) $\frac{2}{7}x = \frac{3}{4}$

Two Steps: put number or the x-term on one side first

$$(Q21.) 2x + 27 = 5$$

$$(Q22.) 2x + 27 = 5x$$

$$(Q23.) 2 + 27x = 5$$

$$(Q24.) 7x - 2.2 = 3x$$

$$(Q25.) 0.8 - x = 2$$

$$(Q26.) \frac{4}{3}x - 5 = -3$$

$$(Q27.) 3x + 0.19 = 1$$

$$(Q28.) 50x = x - 7$$

$$(Q29.) \frac{-1}{4} = \frac{2}{3}x + \frac{3}{8}$$

$$(Q30.) x = 5x - \frac{1}{3}$$

$$(Q31.) 12x + 3 = 3$$

$$(Q32.) \frac{1}{3} = -2x + \frac{2}{9}$$

$$(Q33.) 3x = \frac{1}{2}x + 5$$

$$(Q34.) 3 = \frac{1}{2}x + 5$$

$$(Q35.) 8x = 45 + 13x$$

$$(Q36.) 8x = -2x - 54$$

$$(Q37.) 0.57 + 4x = 1.88$$

$$(Q38.) -28.3 + 15x = 40.1$$

$$(Q39.) -3 + 10x = -2x$$

$$(Q40.) \frac{3}{4} = \frac{1}{6} - x$$

Two Steps: x-term and numbers on both sides

(Q41.) $8x - 18 = 10x - 20$

(Q42.) $12 + 8x = 18x + 12$

(Q43.) $12 + 18x = 18x + 9$

(Q44.) $12 + 18x = 18x + 12$

(Q45.) $\frac{1}{5}x + 10 = 8 - \frac{1}{2}x$

(Q46.) $\frac{5}{4}x + 3 = -2 - \frac{1}{2}x$

(Q47.) $1 - \frac{3}{4}x = \frac{1}{8}x - 13$

(Q48.) $3x + \frac{1}{2} = \frac{3}{4} - x$

(Q49.) $-9 - \frac{1}{3}x = 2x + 5$

(Q50.) $\frac{1}{3} + 4x = 7x - \frac{2}{9}$

(Q51.) $0.7x - 2.4 = 5.3 + 0.3x$

(Q52.) $3x - 8.25 = -10 + 7x$

(Q53.) $4.5x + 2.4 = 3.5x - 10$

(Q54.) $-23 + 1.8x = 1.5x - 23$

(Q55.) $3x - 25 = 4x + 9$

(Q56.) $-3x + 27 = 18 - 8x$

(Q57.) $8x + 8 = 10x + 10$

(Q58.) $\frac{1}{2}x + \frac{1}{2} = \frac{1}{3}x + \frac{1}{3}$

(Q59.) $-201 + 26x = 30x + 189$

(Q60.) $9x + \frac{3}{5} = 2 + 4x$

Distribute first, then combine like terms on the same side first

$$(Q61.) 4(2x - 5) + 20 = 8x$$

$$(Q62.) -2 + 3(x + 9) = -20$$

$$(Q63.) 7x = 3.4 + 7(x + 5.2)$$

$$(Q64.) 24 = 3(-2x + 8) + 5x$$

$$(Q65.) 0.3(5x - 2) - x = 10$$

$$(Q66.) 2x + \frac{1}{2}\left(6x - \frac{1}{4}\right) = 5$$

$$(Q67.) 8x = 4x + 2(5x + 12)$$

$$(Q68.) 2 = \frac{2}{3}(x - 15) - 7$$

$$(Q69.) 4x = 8 - 3(2x + 1)$$

$$(Q70.) -7(2x - 4) + 12 = 40$$

$$(Q71.) 8 - 0.5(16x - 6) = 53$$

$$(Q72.) 22 - \frac{4}{5}(3x - 10) = 25$$

$$(Q73.) 8.25 = 3(2x - 1) - x$$

$$(Q74.) \frac{1}{6}(54 + 2x) + \frac{2}{3}x = 100$$

$$(Q75.) 0.08(2x + 5) - 12 = 10$$

$$(Q76.) -x + 0.15(6x - 40) = 12$$

$$(Q77.) 18x = 5(-2x + 3) + 4x$$

$$(Q78.) 164 = 18(x - 2) + 22x$$

$$(Q79.) 14 = \frac{3}{5}(2x + 10) + x$$

$$(Q80.) -10\left(2x + \frac{7}{2}\right) + 8 = 12$$

Distribute, combine, then do $ax+b=cx+d$

$$(Q81.) 12 - 3(2x + 3) = 2x - 4(2x + 3)$$

$$(Q82.) 11 + 4(5x - 21) = 15x - 4(x - 11)$$

$$(Q83.) \frac{1}{2}(8x - 28) = 4\left(\frac{5}{2}x - 3\right) + 8$$

$$(Q84.) \frac{3}{4}(16x + 4) = 6\left(\frac{5}{3}x + 2\right) - 17$$

$$(Q85.) 2(4x - 12) - 5 = 12 - 4(2x - 5)$$

$$(Q86.) 5(2x - 6) + 13 = 13 - 2(5x - 6)$$

$$(Q87.) 0.8(15x + 4) - 2 = 4(2.5x - 0.6) - 17$$

$$(Q88.) 2 + 0.4(25x + 11) = 4(1.4x - 2) + 21$$

$$(Q89.) 8(-2x - 3) = 4(2x + 3) - 7(2x + 6)$$

$$(Q90.) 13(x - 3) = 5(3x + 2) - 9(2x + 11)$$

$$(Q91.) 3(2x + 3) = 41 - 4(2x + 1) + 7x$$

$$(Q92.) 9x + 5(2x - 3) = 8x - 14$$

$$(Q93.) \frac{3}{2}(6x - 8) - \frac{1}{4}(8x - 16) = -12$$

$$(Q94.) 8 - 5(3x - 12) = 4(17 - 2x)$$

$$(Q95.) \frac{1}{5}(15x - 1) - 2\left(\frac{3}{10}x + 9\right) = -31$$

$$(Q96.) 3x + 6(2x - 9) = 5x - 12$$

$$(Q97.) 0.6x + 3 = 2(0.6x - 5) - 2$$

$$(Q98.) x = 8x + 49 + 2(5 - 3x)$$

$$(Q99.) \frac{1}{4}x + 9 = x + \frac{1}{2}(5 - x)$$

$$(Q100.) 55 - 3x = 5(5 - 3x)$$

$$(Q101.) -3(x - 6) = 2 - x$$

$$-3x - 18 = 2 - x$$

$$-2x - 18 = 2$$

$$-2x = -16$$

$$x = 8$$