

Worksheet #8 Sections 2.1, 2.2 ,2.3 — Review Linear Equations

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Solve each equation leaving your final answer as a whole number or a fraction in reduced form.

(1) $2x = 6$

(2) $11x - 2 = 5$

(3) $3 = 5z$

(4) $5 = -0.5a$

(5) $x - 12 = 13$

(6) $-2x - 4 = -12$

(7) $3 - x = 11$

(8) $-11s + 11 = 0$

(9) $x - 3.7 = 2.8$

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

(11) $\frac{2}{3}x = 4$

(12) $\frac{1}{2}y = 4$

(13) $x - 3 = 2$

(14) $2x = \frac{1}{3}$

(15) $y - 3 = -5$

(16) $-2 - 3x = 4$

(17) $2z + 2 = z + 1$

(18) $-0.3x = -6$

(19) $1.2x = 0.36$

(20) $3z - 1 = 11$

(21) $\frac{1}{4}a = \frac{1}{8}$

(22) $\frac{x}{3} = 6$

(23) $2(x - 1) = 6$

(24) $\frac{12}{x} = 4$

(25) $x + 0.4 = -1.3$

(26) $\frac{1}{3}x = 2x - 1$

(27) $0.2x - 2.3 = -6.7$

(28) $12 - 48b = 0$

(29) $\frac{x}{2} = \frac{x}{3}$

(30) $2x + 1 = 3x + 1$

(31) $\frac{x}{3} - \frac{x+2}{2} = 9$

(32) $\frac{2x}{3} = \frac{3}{5}$

(33) $2(1.2x) - 1 = 5$

(34) $3x - 9 = 6x - 12$

(35) $\frac{x}{2} - \frac{1}{3} = \frac{1}{6}$

(36) $22x - 3 = 23$

(37) $\frac{6z-1}{3z-1} = 2$

(38) $-12x = \frac{2}{3}$

$$(39) \frac{2y}{3} = -4$$

$$(41) \frac{2}{3}x = \frac{3}{4}$$

$$(43) \frac{2x-7}{2} - \frac{-x+2}{4} = \frac{5}{12}$$

$$(45) \frac{1}{x-1} = 2$$

$$(47) 5z - 3 = 2z - 1$$

$$(49) 1 + x = x + 2$$

$$(51) \frac{b}{0.2} = 0.03$$

$$(53) \frac{z}{4} = 2z$$

$$(55) 3y - 3 = -2y + 6$$

$$(57) \frac{2x}{3} = \frac{1}{2}$$

$$(59) 3(2x - 1) = -1 + 2(3x - 1)$$

$$(61) 2x - 0.1x = 0.38$$

$$(63) 13.8 - 1.3x = 4.3 + 1.2x$$

$$(65) 3(x - 1) = 2(x + 1)$$

$$(67) 3 - 2(x - 1) = 2(x + 1) - 3$$

$$(69) \frac{1}{a+1} = \frac{1}{2a-1}$$

$$(71) \frac{x+1}{3} = \frac{3x-2}{2}$$

$$(73) \frac{2}{3}y = \frac{y}{3} - 1$$

$$(40) x - 0.02x = 49$$

$$(42) \frac{5}{a} = 3$$

$$(44) \frac{x}{0.3} = 0.2$$

$$(46) 7 - 5(2t - 5) - 1 = 4t - 1$$

$$(48) \frac{x}{2} - \frac{x}{3} = 1$$

$$(50) \frac{1}{2}q = q + \frac{1}{2}$$

$$(52) 2s - 3 = \frac{s}{2}$$

$$(54) 0 = \frac{2}{3}x - 5$$

$$(56) -1.2 + x = 3.6$$

$$(58) 3 - 2(-5 + 2a) = 3 - 4(a + 1)$$

$$(60) \frac{3}{q} = \frac{2}{3}$$

$$(62) \frac{1}{s} - 2 = 4$$

$$(64) \frac{2}{3}x - \frac{1}{3} = 3$$

$$(66) 3 - 3(y - 2) = 5 + 2$$

$$(68) 0.3(0.2x - 1) = 1.44$$

$$(70) 5 - 3(x - 1) = x - 1$$

$$(72) \frac{a+2}{a} = \frac{2}{3}$$

$$(74) 2(x + 2) - 4 = 2x$$

Answers: (1) 3 (2) $\frac{7}{11}$ (3) $\frac{3}{5}$ (4) -10 (5) 25 (6) 4 (7) -8 (8) 1
(9) $\frac{13}{2}$ (10) $\frac{7}{3}$ (11) 6 (12) 8 (13) 5 (14) $\frac{1}{6}$ (15) -2 (16) -2 (17) -1
(18) 20 (19) $\frac{3}{10}$ (20) 4 (21) $\frac{1}{2}$ (22) 18 (23) 4 (24) 3 (25) $-\frac{17}{10}$ (26) $\frac{3}{5}$
(27) -22 (28) $\frac{1}{4}$ (29) 0 (30) 0 (31) -60 (32) $\frac{9}{10}$ (33) $\frac{5}{2}$ (34) 1 (35) 1
(36) $\frac{13}{11}$ (37) No Solution (38) $-\frac{1}{18}$ (39) -6 (40) 50 (41) $\frac{9}{8}$ (42) $\frac{5}{3}$ (43) $\frac{53}{15}$
(44) $\frac{3}{50}$ (45) $\frac{3}{2}$ (46) $\frac{16}{7}$ (47) $\frac{2}{3}$ (48) 6 (49) No Solution (50) -1 (51) $\frac{3}{500}$
(52) 2 (53) 0 (54) $\frac{15}{2}$ (55) $\frac{9}{5}$ (56) $\frac{24}{5}$ (57) $\frac{3}{4}$ (58) a (59) All Real Numbers
(60) $\frac{9}{2}$ (61) $\frac{1}{5}$ (62) $\frac{1}{6}$ (63) $\frac{19}{5}$ (64) 5 (65) 5 (66) $\frac{2}{3}$ (67) $\frac{3}{2}$ (68) 29
(69) 2 (70) $\frac{9}{4}$ (71) $\frac{8}{7}$ (72) -6 (73) -3 (74) All real numbers