ANSWERS

WorkSHEET 11.2 Linear equations **Name:** _____

1 Solve the following equations.

(a) $m + \frac{1}{4} = \frac{3}{4}$

$m + \frac{1}{4} = \frac{3}{4}$

$-\frac{1}{4}$

$m = \frac{2}{4}$

$\therefore m = \frac{1}{2}$

(b) $\frac{l}{6} = -3.8$

$\frac{l}{6} = -3.8$

$\times 6$

$l = -22.8$

(c) $2x + 4 = 5$

$2x + 4 = 5$

-4

$2x = 1$

$\div 2$

$x = \frac{1}{2}$

(d) $-4(y + 10) = 12$

$-4y - 40 = 12$

$+4y$

$-40 = 12 + 4y$

-12

$-52 = 4y$

$\div 4$

$-13 = y$

$\therefore y = -13$

2 Solve the following equations.

(a) $\frac{e+3}{2} = 4$

$\frac{e+3}{2} = 4$ ×2

$e+3 = 8$ −3

$e = 5$

(b) $\frac{-6f}{7} = 2$

$\frac{-6f}{7} = 2$ ×7

$-6f = 14$ +6f

$0 = 14 + 6f$ −14

$-14 = 6f$ ÷6

$\frac{-7}{3} = f$

$f = -\frac{7}{3}$

3 Solve the following equations.

(a) $\frac{d}{3}+2=5$

$\frac{d}{3}+2=5$ -2

$\frac{d}{3}=3$ $\times 3$

$d=9$

(b) $7-\frac{6g}{9}=10$

$7-\frac{6g}{9}=10$

$7=10+\frac{6g}{9}$ -10

$-3=\frac{6g}{9}$ $\times 9$

$-27=6g$ $\div 6$

$\frac{-27}{6}=g$

$\therefore g=-\frac{9}{2}$

4 Solve the equations below.

(a) $\frac{5-2x}{3} = 9$

$\frac{5-2x}{3} = 9$ ×3

$5-2x = 27$ +2x

$5 = 27+2x$ −27

$-22 = 2x$ ÷2

$x = -11$

(b) $\frac{2(y-2)}{4} + 7 = 14$

$\frac{2(y-2)}{4} + 7 = 14$ −7

$\frac{2(y-2)}{4} = 7$ ×4

$2(y-2) = 28$

$2y - 4 = 28$ +4

$2y = 32$ ÷2

$y = 16$

5 Solve the following equations.

(a) $3d + 4 = -11 - 2d$

$3d + 4 = -11 - 2d$ +2d

$5d + 4 = -11$ −4

$5d = -15$ ÷5

$d = -3$

(b) $18 - 4e = e + 3$

$18 - 4e = e + 3$ +4e

$18 = 5e + 3$ −3

$15 = 5e$ ÷5

$3 = e$

$\therefore e = 3$

7 Expand the brackets first and then solve the equation.

(a) $4(2 - v) = 2v + 2$

$8 - 4v = 2v + 2$

$+4v$

$8 = 6v + 2$

-2

$6 = 6v$

$\div 6$

$1 = v$

$\therefore v = 1$

(b) $w + 4 = 2(4w - 5)$

$w + 4 = 8w - 10$

$-w$

$4 = 7w - 10$

$+10$

$14 = 7w$

$\div 7$

$2 = w$

$\therefore w = 2$