Note: Only turn back to page number if you have difficulty	Page

Q1. What must be done to the following expressions to make them equal to x? — 87

(a) $6x$ (b) $x-8$ (c) $\dfrac{x}{3}$ (d) $x+4$ (e) $-2x$

(f) $9+x$ (g) $\dfrac{x}{10}$ (h) $-5x$ (i) $x-11$ (j) $12+x$

Q2. Solve the equations: — 88

(a) $x+6=19$ (b) $\dfrac{x}{8}=4$ (c) $5x=35$ (d) $\dfrac{x}{6}=8$

(e) $x-7=15$ (f) $-3x=12$ (g) $x-5=-3$ (h) $-4x=-28$

Q3. What must be done to the following expressions to make them equal to a: — 89

(a) $6a+1$ (b) $3a-1$ (c) $5+3a$ (d) $2a-5$ (e) $9a+4$
(f) $3+12a$ (g) $5a-8$ (h) $6-12a$ (i) $4a-2$ (j) $10+3a$

Q4. Solve these equations: — 89

(a) $5+3x=50$ (b) $7x-3=60$ (c) $4+9x=31$ (d) $5x-12=8$
(e) $12+8x=68$ (f) $2x-7=23$ (g) $14+6x=44$ (h) $3x-16=20$

Q5. Solve the following equations by first expanding: — 90

(a) $4(a+1)=56$ (b) $2(3+x)=14$ (c) $7(x-6)=21$
(d) $6(4+y)=72$ (e) $2(m-3)=26$ (f) $5(w+6)=70$
(g) $3(x-4)=33$ (h) $9(p-2)=45$

Q6. What must be done to these expressions to make them equal to m: — 91

(a) $\dfrac{m+2}{5}$ (b) $\dfrac{3m}{4}$ (c) $\dfrac{m+10}{3}$ (d) $\dfrac{m}{5}-2$

(e) $\dfrac{m}{3}-14$ (f) $\dfrac{m-6}{4}$ (g) $2+\dfrac{m}{15}$ (h) $\dfrac{9m}{6}$

Q7. Solve these equations: — 91

(a) $\dfrac{x}{4}-3=4$ (b) $\dfrac{5x}{2}=15$ (c) $\dfrac{3+x}{7}=3$ (d) $\dfrac{8x}{10}=4$

(e) $\dfrac{x-7}{3}=12$ (f) $16+\dfrac{x}{9}=20$ (g) $\dfrac{12x}{5}=24$ (h) $9+\dfrac{x}{7}=15$

Q8. Given the formula $y=2x+z$, find the value of y if: — 94

(a) $x=5, z=2$ (b) $x=16, z=7$ (c) $x=10, z=4\dfrac{1}{2}$

(d) $x=9.2, z=8$ (e) $x=6.1, z=3.2$ (f) $x=15, z=20$

Level 1 — Equations (ANSWERS)

Q1. (a) $\div 6$ (b) $\div 8$ (c) $\times 3$ (d) -4 (e) $\div -2$
     (f) -9 (g) $\times 10$ (h) $\div -5$ (i) $\div 11$ (j) -12

Q2. (a) $x = 13$ (b) $x = 32$ (c) $x = 7$ (d) $x = 48$
     (e) $x = 22$ (f) $x = -4$ (g) $x = 2$ (h) $x = 7$

Q3. (a) -1 and $\div 6$ (b) $+1$ and $\div 3$ (c) -5 and $\div 3$ (d) $+5$ and $\div 2$
     (e) -4 and $\div 9$ (f) -3 and $\div 12$ (g) $+8$ and $\div 5$ (h) -6 and $\div -12$
     (i) $+2$ and $\div 4$ (j) -10 and $\div 3$

Q4. (a) $x = 15$ (b) $x = 9$ (c) $x = 3$ (d) $x = 4$
     (e) $x = 7$ (f) $x = 15$ (g) $x = 5$ (h) $x = 12$

Q5. (a) $a = 13$ (b) $x = 4$ (c) $x = 9$ (d) $y = 8$
     (e) $m = 16$ (f) $w = 8$ (g) $x = 15$ (h) $p = 7$

Q6. (a) $\times 5$ and -2 (b) $\times 4$ and $\div 3$ (c) $\times 3$ and -10 (d) $+2$ and $\times 5$
     (e) $+14$ and $\times 3$ (f) $\times 4$ and $\div 6$ (g) -2 and $\times 15$ (h) $\times 6$ and $\div 9$

Q7. (a) $x = 28$ (b) $x = 6$ (c) $x = 18$ (d) $x = 5$
     (e) $x = 43$ (f) $x = 36$ (g) $x = 10$ (h) $x = 42$

Q8. (a) $y = 12$ (b) $y = 39$ (c) $y = 24\frac{1}{2}$ (d) $y = 26.4$ (e) $y = 15.4$ (f) $y = 50$