1 (a) Simplify $12a + 3a - 7a$

.....

(1)

(b) Simplify $8 \times 3b$

.....

(1)

(c) Solve $\frac{c}{3} = 9$

$c =$ .....

(1)

(Total for Question 1 is 3 marks)

---

2 (a) Simplify $5p \times 9k$

.....

(1)

(b) Simplify $3e + 2f + 8e - 7f$

.....

(2)

(c) Solve $2d + 7 = 16$

$d =$ .....

(2)

(Total for Question 2 is 5 marks)

3

(a) Simplify $12g - 8e - 5g + 6e$

.....

(2)

$A = 3b - 5c$

(b) Work out the value of A when $b = 12$ and $c = 4$

$A =$ .....

(2)

(c) Solve $4p + 9 = 24$

$p =$ .....

(2)

(Total for Question 3 is 6 marks)

4 (a) Simplify $y \times y \times y$

.....

(1)

(b) Simplify $3c \times 2d$

.....

(1)

(c) Simplify $2k - 4k + 3k$

.....

(1)

(Total for Question 4 is 3 marks)

---

5 (a) Simplify $6p + 2t + p - 3t$

.....

(2)

$A = 8x - 3y$

(b) Work out the value of A when $x = 5$ and $y = 4$

$A =$ .....

(2)

(Total for Question 5 is 4 marks)

6 (a) Simplify $10y - y$

.....

(1)

(b) Simplify $3p \times 4p$

.....

(1)

(c) Solve $7x = 42$

$x =$ .....

(1)

(d) Solve $n + 6 = 5$

$n =$ .....

(1)

(e) Simplify $8c + 5d - 2c - 3d$

.....

(2)

(Total for Question 6 is 6 marks)

7 (a) Simplify $c \times c \times c \times c \times c$

.....

(1)

(b) Solve $5 + x = 12$

$x =$ .....

(1)

(c) Solve $\frac{y}{6} = 3$

$y =$ .....

(1)

(d) Expand $5(2 + 3h)$

.....

(1)

(e) Factorise $g^2 + 7g$

.....

(1)

(Total for Question 7 is 5 marks)

8 (a) Simplify $a \times a \times a \times a \times a$

.....

(1)

(b) Simplify $8b \times 3c$

.....

(1)

(c) Expand $3(x + 4)$

.....

(1)

$Q = 5v^2 - w$

(d) Work out the value of Q when $v = \frac{1}{2}$ and $w = \frac{1}{4}$

$Q =$ .....

(2)

(Total for Question 8 is 5 marks)

9 (a) Simplify $a + a + a + a$

.....

(1)

(b) Simplify $3c \times 5c$

.....

(1)

(c) Simplify $3e + 7g + 5e - 4g$

.....

(2)

(d) Solve $x - 9 = 14$

$x =$ .....

(1)

(e) Factorise $5y + 15$

.....

(1)

(f) Make y the subject of $H = 3y - w$

.....

(2)

(Total for Question 9 is 8 marks)

10 (a) Simplify $3r \times 5t$

.....

(1)

(b) Solve $4x + 5 = 27$

$x =$ .....

(2)

$P = 7w - 5y$

(c) Find the value of P when $w = 2$ and $y = 4$

$P =$ .....

(2)

$Q = 2u^2 - 5$

(d) Find the value of Q when $u = -3$

$Q =$ .....

(2)

(Total for Question 10 is 7 marks)

11 (a) Simplify $3c + 5d - c + 2d$

.....

(2)

(b) Simplify $8e \times 5f$

.....

(1)

(c) Solve $5r - 3 = 8$

$r =$ .....

(2)

(Total for Question 11 is 5 marks)

---

12 (a) Simplify $6e \times 2f$

.....

(1)

(b) Simplify $5m + 7k - 2m + k$

.....

(2)

(c) Solve $5y + 3 = 14$

$y =$ .....

(2)

(Total for Question 12 is 5 marks)

13 (a) Simplify $6x + 8x - 3x$

.....

(1)

(b) Simplify $4e \times 5f$

.....

(1)

(c) Solve $8p = 24$

$p =$ .....

(1)

(d) Solve $k - 4 = 13$

$k =$ .....

(1)

(e) Simplify $10t + 4d - 3t + 2d$

.....

(2)

(Total for Question 13 is 6 marks)

14 (a) Simplify $5c \times d$

.....

(1)

(b) Solve $x + 5 = 12$

$x =$ .....

(1)

(c) Solve $9y = 36$

$y =$ .....

(1)

(d) Simplify $8k + 5m - 2k + 6m$

.....

(2)

(e) Expand $4(3g + 1)$

.....

(1)

(Total for Question 14 is 6 marks)

15 (a) Simplify $10x + 4y + 3x - 6y$

.....

(2)

(b) Solve $2n + 5 = 16$

$n =$ .....

(2)

(Total for Question 15 is 4 marks)

---

16 (a) Simplify $3 \times 10d$

.....

(1)

(b) Simplify $8e + e - 5e$

.....

(1)

(c) Solve $6g = 42$

$g =$ .....

(1)

(d) Solve $24 = 10 + h$

$h =$ .....

(1)

(Total for Question 16 is 4 marks)

17 (a) Solve $5x = 20$

$x =$ .....

(1)

(b) Simplify $3a \times 8b$

.....

(1)

(c) Simplify $8w - 4y + w - 3y$

.....

(2)

(d) Factorise fully $16 + 12t$

.....

(2)

(Total for Question 17 is 6 marks)

18 (a) Find the value of $25 - 4g$ when $g = -3$

.....

(2)

(b) Expand and simplify $x(2x + 1) + 3(x - 2) + 7$

.....

(3)

(Total for Question 18 is 5 marks)

19 (a) Solve $5x = 30$

$x =$ .....

(1)

(b) Solve $y - 7 = 12$

$y =$ .....

(1)

(c) Simplify $h + h + h + h + h$

.....

(1)

(d) Simplify $5a + 7f - 2a + 4f$

.....

(2)

(Total for Question 19 is 5 marks)

20 (a) Simplify $4m + 2m - m$

(1)

(b) Simplify $5p \times 7$

(1)

(c) Solve $8g = 40$

$g =$

(1)

(d) Solve $19 - k = 4$

$k =$

(1)

(Total for Question 20 is 4 marks)

---

21 (a) Simplify $10a \times b$

.....

(1)

(b) Solve $n + 3 = 7$

$n =$ .....

(1)

(Total for Question 21 is 2 marks)

22 (a) Simplify $p + p + p + p + p + p$

.....

(1)

(b) Simplify $5y^2 + 6y^2 - 3y^2$

.....

(1)

(c) Simplify $e \times e \times e \times e \times e$

.....

(1)

(d) Simplify $5c \times 4d$

.....

(1)

(e) Solve $x - 7 = 19$

$x =$ .....

(1)

$18^2 + 15^2 - 5^3 = 4n$

(f) Work out the value of n.

$n =$ .....

(2)

(g) Factorise $9t - 6$

.....

(1)

(Total for Question 22 is 8 marks)

23 (a) Simplify $w \times w \times w \times w \times w$

.....

(1)

(b) Simplify $5a \times 3c$

.....

(1)

(c) Simplify $3e + 2f - e + 5f$

.....

(2)

(d) Solve $5x - 7 = x + 12$
Show clear algebraic working.

$x =$ .....

(3)

(Total for Question 23 is 7 marks)