

SIMPLYFING ALGEBRA

ANSWER SHEET

Q1

$$\begin{aligned} 3y + 4y - 2y \\ 7y - 2y \\ 5y \end{aligned}$$

Q2

$$\begin{aligned} 3n + 3n \\ = 6n \end{aligned}$$

Q3

$$\begin{aligned} m + m + m \\ = 3m \end{aligned}$$

Q4

(4)

$$\begin{aligned} \text{a) } p \times q \times r \\ = pqr \\ \text{b) } 5q - 2q \\ = 3q \\ \text{c) } \frac{6a}{3} \\ = 2a \end{aligned}$$

Q5

$$4 + b + 8$$

$$2b + 8$$

Q6

(6) a) $4 \times 3y$
 $= 12y$

b) $7b - 3b + 6b$
 $4b + 6b$
 $= 10b$

Q7

$$8a + 6b - 3a + b$$

$$5a + 7b$$

Q8

c) a) $3 \times a \times 9$
 $= 27a$

b) $2y - 3x - 6y - 4x$
 $-4y - 7x$

Q9

$$8a + 3b - a + 2b$$

$$7a + 5b$$

Q10

$$\begin{aligned} \text{(10)} \\ \text{a)} \quad & p + p + p + p + p \\ & = 5p \\ \text{b)} \quad & 5p + 3q + 2p + 2q \\ & 7p + 5q \end{aligned}$$

Q11

$$\begin{aligned} \text{(11)} \\ \text{a)} \quad & 2p \times 3q \\ & = 6pq \\ \text{b)} \quad & 2q \times 2q \\ & = 4q^2 \\ \text{c)} \quad & \frac{7a + 5a}{4} \\ & = \frac{12a}{4} = 3a \end{aligned}$$

Q12

$$\begin{aligned} 11a - 8b + 5a - b \\ = 16a - 9b \end{aligned}$$

Q13

$$\begin{aligned} \text{a)} \quad & 3p \times 4q \\ & 12pq \\ \text{b)} \quad & 3a + 2b + 6a - b \\ & 9a + b \end{aligned}$$

Q14

(14)

a) $p \times q \times 3$
 $= 3pq$

b) $b \times b \times b$
 $= b^3$

c) $\frac{10a}{a}$
 $= 10$

Q15

(15)

a) $b \times 2 \times 5$
 $= 10b$

b) $c \times c$
 $= c^2$

c) $\frac{2a + 6a}{2}$
 $= \frac{8a}{2}$
 $= 4a$

Q16

(16)

a) $2p \times 7q$
 $= 14pq$

b) $7p + 4q - 3p - 5q$
 $= 4p - q$

Q17

(17)
a) $6a - a$
 $= 5a$

b) $7a^2 - 3a + 3a^2 + 6a$
 $10a^2 + 3a$

Q18

$2 \times 5 \times 6 \times 2$
 $= 12st$

Q19

(19)
a) $6i \times 5t$
 $= 30it$

b) $7m - 6n + 5m + 4n$
 $12m - 2n$

Q20

(20) a) $4a - 3a + 5a$
 $a + 5a$
 $= 6a$

b) $q^2 + q^2 + q^2$
 $= 3q^2$

c) $5 + 2p + 7q - 6p + 9$
 $= 5 - 4p + 8q$

Q21

$$\textcircled{21} \quad a) \quad p^2 + p^2 + p^2$$

$$= 3p^2$$

$$b) \quad 2pq - 5pq + 4pq$$
$$- 3pq + 4pq$$
$$= pq$$

$$c) \quad 4m + 2 - 7m + m - 6$$
$$- 2m - 4$$

Q22

$$\textcircled{22} \quad m + m + m - m$$

$$a) \quad 3m - m$$
$$= 2m$$

$$b) \quad 3ab + 2ab - ab$$
$$= 5ab - ab$$

$$c) \quad 4p + 3q - p + 3q + 6$$
$$3p + 6q + 6$$