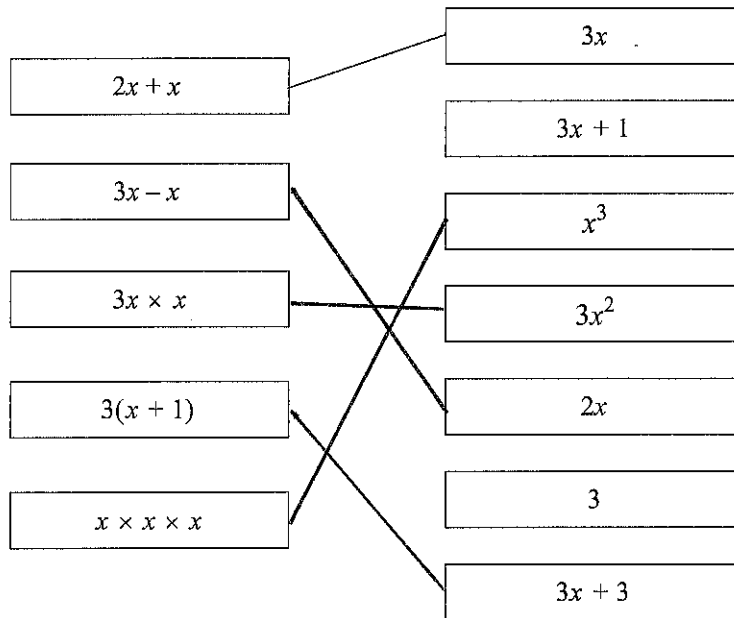


1. (a) Two sets of algebraic expressions are shown below. Draw a line from each expression on the left to the equivalent expression on the right. One line has already been drawn.



(4)

- (b) Simplify $3p + 5q + p - 2q$

$4p + 3q$

 Answer $4p + 3q$

(2)

(Total 6 marks)

2. Simplify

- (a) $c + 4c + 2c$

$7c$

 Answer $7c$

(1)

- (b) $d \times d \times d$

d^3

 Answer d^3

(1)

- (c) $3p + 5q - 2p + q$

$p + 6q$

 Answer $p + 6q$

(2)

(Total 4 marks)

3. (a) Simplify $6p + 3q - 2q + 3p$

.....
 $4p + 3p + 3q$

Answer $7p + 3q$

(2)

(b) Multiply out $5(r - 2)$

.....

Answer $5r - 10$

(1)

(Total 3 marks)

4. (a) Expand $3(y - 4)$

.....

Answer $3y - 12$

(1)

(b) Simplify the expression

$2c + 6d + 4c - 8c$

.....

Answer $6d - 2c$

(2)

(c) Factorise $x^2 + 5x$

.....

Answer $x(x + 5)$

(2)

(Total 5 marks)

5. (a) Simplify $2x + 3y + 5x - 2y - 4x$

.....

Answer $3x + y$

(2)

(b) Factorise $4c + 12$

.....

Answer $4(c + 3)$

(1)

(c) Factorise $x^2 + 5x$

.....

Answer $x(x + 5)$

(2)

(Total 5 marks)

6. Factorise

(a) $4x - 8$

$4(x - 2)$

Answer.....

(1)

(b) $y^2 + 2y$

$y(y + 2)$

Answer.....

(2)

(Total 3 marks)

7. (a) If $x = 4$ and $y = -3$, find the value of $3x - 2y$

$3 \times 4 - 2 \times -3$

$12 - -6$

Answer.....

$12 + 6 = 18$

(2)

(b) Simplify $3p + 5q - 2p + q$

Answer.....

$p + 6q$

(2)

(c) Multiply out and simplify $2(3x + 1) - 3(x - 2)$

$6x + 2 - 3x + 6$

$3x + 8$

Answer.....

(2)

(Total 6 marks)

8. (a) Simplify

$$4x - 5x + 7x$$

.....
 Answer $6x$

(1)

(b) Simplify

(i) $x^5 \times x^{-2}$

..... $x^{5+(-2)} = x^3$

.....
 Answer x^3

(1)

(ii) $y^5 \div y^{-2}$

..... $y^{5-(-2)} = y^7$

.....
 Answer y^7

(1)

(Total 3 marks)

9. Simplify

(a) $w^6 \times w^2$

..... $w^{6+2} = w^8$

.....
 Answer w^8

(1)

(b) $x^3 \div x^5$

..... $x^{3-5} = x^{-2}$

.....
 Answer x^{-2}

(1)

(c) $(y^3)^2$

..... $y^3 \times y^3 = y^{3+3}$

.....
 Answer y^6

(1)

(Total 3 marks)