



3. If  $x = 5$  and  $y = -7$ , find the value of

(a)  $4x + 3y$

.....  
.....

Answer.....

(2)

(b)  $\frac{x - y}{4}$

.....  
.....

Answer.....

(2)

(Total 4 marks)

4. Use the formula  $a = 5b + 2c$  to work out  $a$  when  $b = 3$  and  $c = -4$

.....  
.....

Answer .....

(Total 2 marks)

5. Here is a formula  $P = 10(x - y)$  Find the value of  $P$  when

(a)  $x = 8$  and  $y = 2$

.....  
Answer  $P =$  .....

(2)

(b)  $x = 9.6$  and  $y = 5.4$

.....  
.....

Answer  $P =$  .....

(2)

(Total 4 marks)

6. (a) Find the value of  $4x - 3y$  when  $x = 5$  and  $y = -6$

.....  
.....

Answer .....

(2)

(b) Find the value of  $\frac{x}{y}$  when  $x = 30$  and  $y = -2$

.....  
.....  
.....

Answer .....

(2)

(Total 4 marks)

Success:

Target:



**Section B**                      **Expanding and Simplifying**                      **Grade D / C**

1. 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.

$2x + x$	$3x$
$3x - x$	$3x + 1$
$3x \times x$	$x^3$
$3(x + 1)$	$3x^2$
$x \times x \times x$	$2x$
	$3$
	$3x + 3$

(Total 4 marks)

2. Simplify

(a)  $x + 5x - 2x$

.....

Answer .....

(1)

(b)  $7p + 2q - p + 2q$

.....

Answer .....

(2)

(Total 3 marks)

3. Simplify the following

(a)  $3x + 2x - x$

.....

Answer .....

(1)

(b)  $5x + 3y - 2x + 4y$

.....

Answer .....

(2)

(c)  $3 \times a \times 4$

.....

Answer .....

(1)

(Total 4 marks)

4. Simplify

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

.....

Answer .....

(1)

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

.....

Answer .....

(1)

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

.....

.....

Answer .....

(2)

(Total 4 marks)

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

.....

Answer .....

(2)

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

.....

Answer .....

(1)

(Total 3 marks)

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

.....

.....

.....

Answer .....

(2)

(b) Multiply out

(i)  $4(m - 1)$

.....

.....

Answer .....

(1)

(ii)  $p(p + 3)$

.....

.....

Answer .....

(1)

(Total 4 marks)

7. (a) Expand  $3(4y + 1)$

.....  
.....

Answer.....

(1)

(b) Expand  $4x(x^2 + 5)$

.....  
.....

Answer.....

(2)

(Total 3 marks)

8. (a) Expand and simplify  $4(2x - 1) + 3(x + 6)$

.....  
.....  
.....

Answer .....

(2)

(b) Expand  $x^2(4 - 2x)$

.....  
.....

Answer .....

(2)

(Total 4 marks)

9. Expand and simplify

$$5(2a - c) + 4(3a + 2c)$$

.....  
.....

Answer .....

(Total 2 marks)

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

.....  
.....

Answer.....  
(Total 2 marks)

11. Expand and simplify

$$5(2x + 1) - 3(x - 4)$$

.....  
.....

Answer .....  
(Total 2 marks)

12. Multiply out and simplify  $4(x - 2) + 3(x + 2)$

.....  
.....

Answer .....  
(Total 2 marks)

13. Simplify

$$10d + 3e - 2d - 7e$$

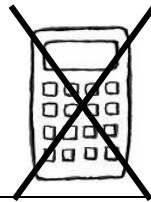
.....  
.....

Answer .....  
(Total 2 marks)

Success:
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Target:
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**Section C**

**Factorising**

**Grade C**

1. (a) Expand  $3(x + 2)$

.....

Answer .....

(1)

(b) Factorise  $6a - 10$

.....

Answer .....

(1)

**(Total 2 marks)**

2. (a) Multiply out  $4(x - 3)$

.....

Answer .....

(1)

(b) Factorise  $6a + 9$

.....

Answer .....

(1)

**(Total 2 marks)**

3. (i) Work out the value of  $x^2 + x$  when  $x = 5$

.....

Answer .....

(1)

(ii) Factorise  $x^2 + x$

.....

Answer .....

(1)

**(Total 2 marks)**

4. (a) Factorise  $10a + 5$

.....

Answer .....

(1)

(b) Factorise  $c^2 - 4c$

.....

Answer .....

(2)

(Total 3 marks)

5. (a) Factorise  $4x - 12$

.....

Answer .....

(1)

(b) Factorise  $x^2 - 5x$

.....

Answer .....

(1)

(Total 2 marks)

6. (a) Factorise  $3x - 6$

.....

Answer .....

(1)

(b) Factorise  $x^2 - 2x$

Answer .....

(2)

(Total 3 marks)

7. (a) Factorise  $10p - 4$

.....

Answer .....

(1)

(b) Factorise  $q^2 + 3q$

.....

Answer .....

(1)

(c) Factorise  $r^2 - r$

.....

Answer .....

(1)

(Total 4 marks)

8. Factorise

(a)  $4x - 8$

.....

Answer.....

(1)

(b)  $y^2 + 2y$

.....

Answer.....

(2)

(Total 3 marks)

9. (a) Factorise  $2x + 6$

.....

.....

Answer.....

(1)

(b) Expand  $3(4y + 1)$

.....

.....

Answer.....

(1)

(c) Expand  $4x(x^2 + 5)$

.....  
.....

Answer.....

(2)

(Total 4 marks)

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

.....  
.....  
.....

Answer .....

(2)

(b) Factorise  $4c + 12$

.....

Answer .....

(1)

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

.....

Answer .....

(2)

(Total 5 marks)

11. Factorise completely  $12y^2 - 8y$

.....  
.....

Answer .....

(Total 2 marks)

12. Factorise  $2xy - 6y^2$

.....  
.....  
.....

Answer .....

(Total 2 marks)

13. Factorise completely the following expressions

(i)  $2a^2 + a$

.....  
.....

Answer .....

(1)

(ii)  $8x^3y^2 - 4xy^3$

.....  
.....

Answer .....

(2)

(Total 3 marks)

Success:
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Target:
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