

# Unit 2 Review

Name: \_\_\_\_\_

Block: \_\_\_\_\_

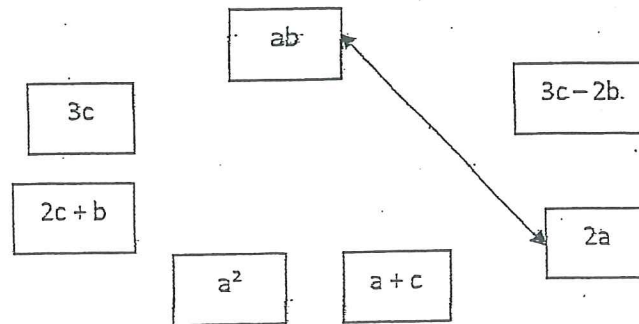
## Test Prep

### Question 1:

Join pairs of algebraic expressions that have the same value.

When  $a = 3$ ,  $b = 2$  and  $c = 6$

One pair is joined for you.

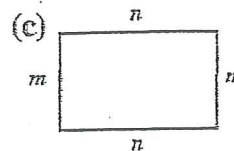
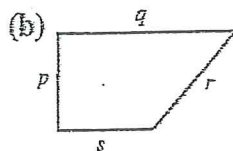
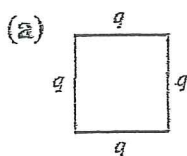


### Question 2:

1. For each question name i) the variable      ii) the coefficient      iii) the constant
- a)  $3x + 2$   
 b)  $7 - 4x$   
 c)  $3x^2 - 5x + 3 + y$

### Question 3:

Write a formula for the perimeter  $P$  of these shapes.



### Question 4:

Simplify:

(a)  $3a + 3b + 3a + 3b$

(c)  $4t + 5t - 4t + 5t$

(e)  $5m + 7n - 5m + n$

(g)  $5b + 3b + 4b - 6b$

(i)  $8r + 3t - r + t$

(k)  $11p + 5r + 3p - 2 + 3$

(m)  $15x - 5y + 3x + 2 + 8y$

(h)  $4x + 5y + 2y + 3x$

(d)  $2w + 3v + 5w + 2$

(f)  $10p + 6q - 8q + 2q$

(h)  $15a + 9 - 9a + 3$

(j)  $4a + 4a + 4a + 5a$

(l)  $7b + 3 + 6b + 5 + b$

(n)  $3c + 5c + 6c - 3 + c$

**Question 5:**

Simplify the following expressions:

a)  $2x \times 3t$

b)  $2w \times 4$

c)  $3t \times t$

d)  $5y \times 3y$

e)  $3t \times 2q$

f)  $3x + 4x$

g)  $5ab^2c \times 6a^3b^2cd$

h)  $6rs^2t \times 7rs^3$

**Question 6:**

Expand these expressions:

a)  $2(3 + m)$

b)  $4(3d - 2n)$

c)  $3(g + h)$

d)  $2k(4 - k)$

**Question 7:**

Simplify these expressions:

(a)  $3(a + b) + 4(2a + b)$

(b)  $5(m + 2n) + 2(3m + 5n)$

(c)  $4(2x + 3y) + 2(x - 3y)$

(d)  $6r(3r - 2s) + 3(r - 5s)$

(e)  $3(x + y) - 4(x + 2y)$

(f)  $2(2a - 3b) - 4(3a - 2b)$

(g)  $2(3r + 4t) - (2r + 3t)$

(h)  $4f(2e + 3f) - 6(e + 2f)$

**Question 8:**

Write these expressions without brackets:

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

(b)  $(m + 2)(m - 3)$

(c)  $(c + 3)(c + 5)$

(d)  $(p - 2)(p - 7)$

(e)  $(y - 4)(y + 3)$

(f)  $(x + 7)(x + 11)$

(g)  $(y + 6)^2$

(h)  $(x - 8)^2$