

**AQA, OCR, Edexcel**

**GCSE**

# GCSE Maths

## Basic Algebra Questions

Name:

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Total Marks: /39

## Basic Algebra

1. Simplify the following expressions:

a.  $a + a + a + a$

b.  $b + b + b + a + a$

c.  $b \times b \times b$

d.  $b \times b \times b \times a$

e.  $3a^2 + 2a$

f.  $3x^2 \times 2x^2$

g.  $3xy \times x$

h.  $xy \times y^2x^4$

i.  $2x \times 3x \times 4$

(9 Marks)

2. Expand the following:

a.  $2(3a + 1)$

b.  $3(2a + 6)$

c.  $5(a^2 + 9)$

d.  $7(a^6 + y^2)$

e.  $6a(a + 4)$

f.  $5a(2a + 4y)$

g.  $5a(3ay + 2a^2)$

(7 Marks)

3. Simplify the following quotients:

a.  $\frac{20x^4}{5x}$

b.  $\frac{15y^3}{5y^{-2}}$

c.  $\frac{(4x^2y^4)}{(2x^2y)}$

(3 Marks)

4. Solve the following equations:

a.  $2x + 7 = 47$

b.  $5x + 18 = 48$

c.  $3x - 12 = 18$

d.  $6x - 12 = 2x + 16$

e.  $10x + 50 = 5x + 25$

f.  $4x^2 - 10 = 26$

g.  $5y + 3y + y = 4y + 5$

h.  $2x - 5x + 2 = -3 - 2x$

i.  $2 + 4y^2 = y^2 + 14$

j.  $\frac{3x^2}{9} = 3$

(20 Marks)