

**AQA, OCR, Edexcel**

**GCSE**

# GCSE Maths

## Multiplying Out Brackets

### Answers

Name:

**M**

**M**

**E**

Mathsmadeeasy.co.uk

Total Marks: /29

## Expanding Brackets

1. Expand the brackets in the following expressions:

a.  $2(a + 4) = 2a + 8$

b.  $3(6a + 5) = 18a + 15$

c.  $2a(a + 3) = 2a^2 + 6a$

d.  $3a(4a - 2a) = 12a^2 - 6a$

e.  $3a(2y - 2x) = 6ay - 6ax$

f.  $4a(3ay + 2ax) = 12a^2y + 8a^2x$

g.  $-2a^2(3a^2 - 2a^2y) = 4a^4y - 6a^4$

(7 Marks)

2. Expand and simplify the following expressions:

a.  $(a + 2)(a + 3) = a^2 + 5a + 6$

b.  $(x + 2)^2 = x^2 + 4x + 4$

c.  $(2x - 2)(3x - 9) = 6x^2 - 24x + 18$

d.  $(5x + 3)^2 = 25x^2 + 30x + 9$

e.  $(9x + 8)(8x - 7) = 72x^2 + x - 56$

(12 Marks)

3. Expand and simplify the following expressions:

a.  $(x + 2)(x + 1)(x + 2) = x^3 + 5x^2 + 8x + 4$

b.  $(x + 4)(x - 3)(2x + 1) = 2x^3 + 3x^2 - 23x - 12$

c.  $(2x + 4)(3x + 2)(4x - 2) = 24x^3 + 52x^2 - 16$

d.  $(2x + 2)^2(3x - 2) = 12x^3 + 16x^2 - 4x - 8$

e.  $(3x + 3)^3 = 27x^3 + 81x^2 + 81x + 27$

(10 Marks)