teachably

# GCSE Mathematics

## Difference of Two Squares

Mark Scheme - Higher | Grades 6-7

M = method mark, A = accuracy mark (dependent on the preceding M mark), B = independent mark.

## Edexcel-style questions

### Q1 Grade 6 Edexcel style

**Total: 1**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $(x + 4)(x - 4)$ | B1 |

### Q2 Grade 6 Edexcel style

**Total: 2**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $4x^2 = (2x)^2$ and $9 = 3^2$ | M1 |
| (a) | $(2x + 3)(2x - 3)$ | A1 |

### Q3 Grade 6 Edexcel style

**Total: 2**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $x^2$ and $y^2$ are both perfect squares | M1 |
| (a) | $(x + y)(x - y)$ | A1 |

### Q4 Grade 7 Edexcel style

**Total: 3**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | common factor 2: $2(x^2 - 16)$ | M1 |
| (a) | $x^2 - 16 = (x + 4)(x - 4)$ | M1 |
| (a) | $2(x + 4)(x - 4)$ | A1 |

### Q5 Grade 7 Edexcel style

**Total: 3**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $51^2 - 49^2 = (51 + 49)(51 - 49)$ | M1 |
| (a) | $= 100 \times 2$ | M1 |
| (a) | 200 | A1 |

## AQA-style questions

### Q6 Grade 6 AQA style — Total: 1

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $(x + 5)(x - 5)$ | B1 |

### Q7 Grade 6 AQA style — Total: 2

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $9x^2 = (3x)^2$ and $16 = 4^2$ | M1 |
| (a) | $(3x + 4)(3x - 4)$ | A1 |

### Q8 Grade 6 AQA style — Total: 2

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $9a^2 = (3a)^2$ and $4b^2 = (2b)^2$ | M1 |
| (a) | $(3a + 2b)(3a - 2b)$ | A1 |

### Q9 Grade 7 AQA style — Total: 3

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | common factor 3: $3(x^2 - 25)$ | M1 |
| (a) | $x^2 - 25 = (x + 5)(x - 5)$ | M1 |
| (a) | $3(x + 5)(x - 5)$ | A1 |

### Q10 Grade 7 AQA style — Total: 3

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $62^2 - 58^2 = (62 + 58)(62 - 58)$ | M1 |
| (a) | $= 120 \times 4$ | M1 |
| (a) | 480 | A1 |

## OCR-style questions

### Q11 Grade 6 OCR style

**Total: 1**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $(x + 7)(x - 7)$ | B1 |

### Q12 Grade 6 OCR style

**Total: 2**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $25x^2 = (5x)^2$ and $4 = 2^2$ | M1 |
| (a) | $(5x + 2)(5x - 2)$ | A1 |

### Q13 Grade 6 OCR style

**Total: 2**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $4p^2 = (2p)^2$ and $25q^2 = (5q)^2$ | M1 |
| (a) | $(2p + 5q)(2p - 5q)$ | A1 |

### Q14 Grade 7 OCR style

**Total: 3**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | common factor 5: $5(x^2 - 16)$ | M1 |
| (a) | $x^2 - 16 = (x + 4)(x - 4)$ | M1 |
| (a) | $5(x + 4)(x - 4)$ | A1 |

### Q15 Grade 7 OCR style

**Total: 3**

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $73^2 - 67^2 = (73 + 67)(73 - 67)$ | M1 |
| (a) | $= 140 \times 6$ | M1 |
| (a) | 840 | A1 |

## Teachably-style questions

### Q16 Grade 6 Teachably style — Total: 1

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $(x + 9)(x - 9)$ | B1 |

### Q17 Grade 6 Teachably style — Total: 2

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $16x^2 = (4x)^2$ and $49 = 7^2$ | M1 |
| (a) | $(4x + 7)(4x - 7)$ | A1 |

### Q18 Grade 6 Teachably style — Total: 2

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $16m^2 = (4m)^2$ and $9n^2 = (3n)^2$ | M1 |
| (a) | $(4m + 3n)(4m - 3n)$ | A1 |

### Q19 Grade 7 Teachably style — Total: 3

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | common factor 4: $4(x^2 - 9)$ | M1 |
| (a) | $x^2 - 9 = (x + 3)(x - 3)$ | M1 |
| (a) | $4(x + 3)(x - 3)$ | A1 |

### Q20 Grade 7 Teachably style — Total: 3

| Part | Mark scheme | Marks |
|---|---|---|
| (a) | $105^2 - 95^2 = (105 + 95)(105 - 95)$ | M1 |
| (a) | $= 200 \times 10$ | M1 |
| (a) | 2000 | A1 |

**END OF PAPER**