

Edexcel GCSE

## Mathematics 2381 Paper 5383F/09

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Mark Scheme

Edexcel GCSE Mathematics 2381

| 5383F/09 |                      |                      |      |   |  |  |  |
|----------|----------------------|----------------------|------|---|--|--|--|
| Question | Working              | Answer               | Mark | Notes   |  |  |  |
| 1 (a)    |                      | 4                    | 1    | B1 accept 4.0(0)  |  |  |  |
| (b)      |                      | 16                   | 1    | B1  |  |  |  |
| 2        | 100 - (23 + 32 + 10) | 35                   | 2    | M1 for $100 - (23 + 32 + 10)$ o.e.                          |  |  |  |
|          | = 100 - 65           |                      |      | A1 cao watch for answer only in table                       |  |  |  |
| 3        |                      | 5 <i>x</i>           | 1    | B1 Accept x5 or $5 \times x$ or $x \times 5$ or $5 \cdot x$ |  |  |  |
| 4        | 6 × 2                | 12                   | 2    | M1 for $6 \times 2$ or answer of 11 or 13 or 6 seen         |  |  |  |
|          |                      |                      |      | A1 cao  |  |  |  |
| 5        |                      | explanation          | 1    | B1 for explanation with Bidmas                              |  |  |  |
|          |                      |                      |      | e.g. Brackets needed $(15 - 3)$ or Answer should be 9       |  |  |  |
|          |                      |                      |      | Note:- brackets needed is insufficient                      |  |  |  |
| 6 (a)    |                      | draw radius          | 1    | B1 (do not accept diameter) Ignore extras if correct        |  |  |  |
| (b)      |                      | draw chord           | 1    | B1 (accept diameter) Ignore extras if correct               |  |  |  |
| 7        | 180 - 152            | 28                   | 2    | M1 for $180 - 152$ or $x = [360 - 2(152)] \div 2$           |  |  |  |
|          |                      |                      |      | or $56 \div 2$ seen   |  |  |  |
|          |                      |                      |      | A1 cao  |  |  |  |
| 8        | $-\sqrt{336.63}$     | 18.347               | 2    | $7\sqrt{687}$   |  |  |  |
|          |                      |                      |      | B2 for $18.347(47939)$ or $-10$                             |  |  |  |
|          |                      |                      |      | (B1 for 18.3 or 336.63 seen)                                |  |  |  |
| 9 (a)    |                      | -4, (1), 6, 11, (16) | 2    | B2  |  |  |  |
|          |                      |                      |      | (B1 for 1 correct entry)                                    |  |  |  |
| (b)      |                      |                      | 2    | M1 for plotting at least 4 of 'their points' correctly      |  |  |  |
|          |                      | Straight line        |      | A1 for correct straight line for $-1 \le x \le 3$           |  |  |  |
|          |                      |                      |      | S.C. B1 for line of gradient 5 or y-intercept 1 on y        |  |  |  |
|          |                      |                      |      | axis if M0 above  |  |  |  |
| 10 (a)   |                      | 6c - 4               | 1    | B1 oe   |  |  |  |
| (b)      |                      | x(y+3)               | 1    | B1 for $x(y + 3)$ oe or $(x + 0)(y + 3)$ oe                 |  |  |  |

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|----------------|---------------------------------------|-------------------------|------|---|--|--|--|
| Question       | Working                               | Answer                  | Mark | Notes   |  |  |  |
| 11             | 146 - 13.20 = 132.80<br>132.80 ÷ 8.30 | 16                      | 3    | M1 for first step in a valid method eg 146 – 13.20 or<br>sight of 132.8(0)<br>M1 for "132.80" ÷ 8.3<br>A1 cao<br>Alternative 1 (repeated addition)<br>M1 for repeated addition of 8.30 (at least twice)<br>M1 for 13.20 + repeated addition of 8.30 (at least 15<br>times)<br>A1 cao<br>Alternative 2 (repeated subtraction)<br>M1 for repeated subtraction of 8.30 (at least twice)<br>M1 for repeated subtraction of 8.30 (at least twice)<br>M1 for repeated subtraction of 8.30 (at least twice)<br>M1 for repeated subtraction of 8.30 (at least 15 times<br>with answers shown) |  |  |  |
| 12 (i)<br>(ii) |                                       | 127<br>Alternate angles | 2    | <ul> <li>B1 for 127</li> <li>B1 for alternate angles (accept Z angles)<br/>or allied angles (co-interior angles) (= 180)<br/>or corresponding angles (accept F angles) and<br/>(vertically) opposite angles<br/>or corresponding angles (accept F angles) and<br/>angles on a straight line (= 180°)<br/>or allied angles (co-interior angles) and angles on<br/>a straight line (= 180°)</li> </ul>  |  |  |  |