

Powers and Roots

Mark Scheme

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Powers and Roots
Grade Level	Grade 1/2
Booklet	Mark Scheme

Time Allowed: 31 minutes

Score: /26

Percentage: /100

Grade Boundaries:

1. Write down the value of

(i) 2^3

8
.....

(ii) $\sqrt{81}$

9
.....

(Total 2 marks)

2. (a) Work out the square of 3

9
.....

(1)

(b) Work out the value of 2^6

64
.....

(1)

(Total 2 marks)

3. (a) Work out the value of

(i) 4^2

16
.....

(ii) 5^3

125
.....

(2)

(b) Write as a power of 10

$10 \times 10 \times 10 \times 10 \times 10$

10^5
.....

(1)

(Total 3 marks)

4. Find the value of

(i) the square root of 36

6
.....

(ii) 5×10^2

500
.....

(iii) 2^3

8
.....

(Total 3 marks)

5. (a) Find the square of 6

.....36.....

(1)

- (b) Find the square root of 225

.....15.....

(1)

- (c) Find the value of 10^3

.....1000.....

(1)

(Total 3 marks)

6. Write down the value of

(i) 3^3

.....27.....

(ii) $\sqrt{81}$

.....9.....

(Total 2 marks)

7. (a) Work out the square of 8

.....64.....

(1)

- (b) Work out the value of 5^3

.....125.....

(1)

(Total 2 marks)

8. (a) Work out the value of

(i) 7^2

.....49.....

(ii) 2^4

.....16.....

(2)

- (b) Write as a power of 10

$$10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10$$

.....10⁷.....

(1)

(Total 3 marks)

9. Find the value of

(i) the square root of 25

.....5.....

(ii) 3×10^4

.....30000.....

(iii) 4^3

.....64.....

(Total 3 marks)

10. (a) Find the square of 7

.....49.....

(1)

(b) Find the square root of 196

.....14.....

(1)

(c) Find the value of 10^5

.....100000.....

(1)

(Total 3 marks)

WORK OUT THE FOLLOWING:

1^2	1
2^2	4
3^2	9
4^2	16
5^2	25
6^2	36
7^2	49
8^2	64
9^2	81
10^2	100
11^2	121
12^2	144
13^2	169
14^2	196
15^2	225