

Indices and Brackets

ANSWERS

Calculator | 30 minutes | Total marks: 26

Name

Class

1 Work out

(a) 4^2

Answer 16 (1) [1 mark]

(b) $10 - 2 \times 3$

Answer 4 (1) [1 mark]

(c) $\sqrt{25}$

Answer 5 (1) [1 mark]

2 Work out

(a) $8 + 6 \div 2$

Answer 11 (1) [1 mark]

(b) $(9 - 4) \times 3$

Answer 15 (1) [1 mark]

(c) $3 + 4^2$

Answer 19 (1) [1 mark]

3

Work out $20 - (2 + 3) \times 2$

Do the brackets first, then the multiplication, then the subtraction.

$$20 - 5 \times 2 \text{ (1)}$$

$$20 - 10$$

Answer 10 (1)

[2 marks]

4

Put one pair of brackets into each calculation so that it is true.

(a) $3 + 4 \times 2 = 14$

Answer $(3 + 4) \times 2 = 14 \text{ (1)}$

[1 mark]

(b) $12 - 2 \times 5 = 50$

Answer $(12 - 2) \times 5 = 50 \text{ (1)}$

[1 mark]

5

Complete the table.

Multiplication	$3 \times 3 \times 3$	4×4	$10 \times 10 \times 10 \text{ (1)}$
Index form	3^3 (1)	4^2	10^3
Value	27 (1)	16 (1)	1000

[4 marks]

6

- (a) Work out 3^2 and 2^3 . Then write down the bigger one.

$$3^2 = 9, 2^3 = 8 \text{ (1)}$$

Answer 3^2 (1)

[2 marks]

- (b) Find the missing power. $2^{\square} = 8$

Answer 3 (1)

[1 mark]

7

- (a) $5^2 \times 5^3 = 5 \times 5 \times 5 \times 5 \times 5$

Write $5^2 \times 5^3$ as a single power of 5

Answer 5^5 (1)

[1 mark]

- (b) Write $7^4 \times 7^2$ as a single power of 7

Answer 7^6 (1)

[1 mark]

- (c) Write $3^6 \div 3^2$ as a single power of 3

Answer 3^4 (1)

[1 mark]

8

Use your calculator to work out

(a) 2.4^2

Answer 5.76 (1)

[1 mark]

(b) $\sqrt{6.76}$

Answer 2.6 (1)

[1 mark]

(c) $(5.2 + 3.8) \div 1.5$

$9 \div 1.5$ (1)

Answer 6 (1)

[2 marks]

9

(a) A square rug has an area of 7.29 m^2

Use your calculator to find the length of one side.

Answer 2.7 (1) m [1 mark](b) Abi works out $4 + 6^2$ and gets 100

What answer should she get?

Answer 40 (1) [1 mark]

Question	Topic	RAG
1	I can work out a square, a square root and a simple calculation	
2	I can use BIDMAS	
3	I can work out a calculation with brackets step by step	
4	I can put in brackets to make a calculation true	
5	I can write numbers in index form and work out their value	
6	I can compare powers and find a missing power	
7	I can use the index laws to multiply and divide powers	
8	I can use a calculator for powers, roots and brackets	
9	I can use a square root and BIDMAS to solve a problem	