



Name: _____

Date: _____

Score: _____ / 28

1 Here is a list of numbers.

6 8 9 16 21 27 28 49 125

From the list, write down

a. the square numbers

b. the cube numbers

c. the triangle numbers

(3 marks)

Answer _____

2 Write down the square number that is between 30 and 45

(1 mark)

Answer _____

3 a. Write $5 \times 5 \times 5 \times 5$ using index notation.

b. Work out the value of 3^4

c. Ruby says, " $2^3 = 6$ ". Explain why Ruby is wrong.

(3 marks)

Answer _____

4 Work out the value of $\sqrt[3]{64}$

(1 mark)

Answer _____

5 You are told that $17^2 = 289$ and $6^3 = 216$

Write down the value of

- a. $\sqrt{289}$
- b. $\sqrt[3]{216}$
- c. $\sqrt{2.89}$

(3 marks)

Answer _____

6 Use your calculator to work out the value of 4.6^3

(1 mark)

Answer _____

7 Use your calculator to work out

$$(2.4^2 + 1.8) \div 0.5^3$$

Write down all the figures on your calculator display.

(2 marks)

Answer _____

8 a. Write $7^4 \times 7^3$ as a single power of 7

b. Write $12^9 \div 12^4$ as a single power of 12

(2 marks)

Answer _____

9 a. Write $2^3 \times 2^4$ as a single power of 2

b. Jamal says, " $2^3 + 2^4 = 2^7$ ".

Show that Jamal is wrong.

(3 marks)

Answer _____

10 Simplify

a. $x^4 \times x^6$

b. $y^9 \div y^3$

c. $(m^2)^5$

(3 marks)

Answer _____

11 Write down the value of

a. 5^0

b. 4^{-1}

c. $9\frac{1}{2}$

(3 marks)

Answer _____

12 $\frac{2^6 \times 2^k}{2^3} = 2^{11}$

Find the value of k .

(3 marks)

Answer _____

End of questions | Total 28 marks