



Name: Solutions.

Total Marks: 32 marks

Total Time: 20 minutes

Show working and answers on this sheet. Show working in sufficient detail to support your answers. Incorrect answers without supporting reasoning may be allocated zero marks.

**No Resources Allowed**

**Question 1**

**3 marks**

Match the definition on the right-hand side with the correct word on the left-hand side by drawing a line between each one:

A number raised to the power of two.	Cubed
Numbers arranged in order from largest to smallest.	Squared
When finding the sum of two numbers, I use this operation.	Descending
A number raised to the power of three.	Addition
When finding the difference of two numbers, I use this operation.	Ascending
Numbers arranged in order from smallest to largest.	Subtraction

( $\frac{1}{2}$  each)

**Question 2**

**2 marks**

Write how you would **SAY** each of the following:

a)  $7^3 =$  Seven cubed or seven to the power of three.

b)  $2^4 =$  Two to the power of four.

(1 each)

**Question 3****1 marks**

Write as a single number.

$$a) (5 \times 1000) + (4 \times 100) + (2 \times 10) + (3 \times 1) = 5423$$

**Question 4****1 marks**

Find the sum of 132 and 439.

$$\begin{array}{r} 132 \\ 439 \\ \hline 571 \end{array}$$

**Question 5****2 marks**

Write the following in extended (expanded) form:

$$a) 2^5 = 2 \times 2 \times 2 \times 2 \times 2$$

$$b) 3^4 = 3 \times 3 \times 3 \times 3$$

**Question 6****3 marks**

Write the following in index form:

$$a) 5 \times 5 \times 5 = 5^3$$

$$b) 2^2 \times 2 \times 2 \times 2 = 2^5$$

**Question 7****2 marks**

Find the answer to the following

$$a) \sqrt{25} = 5$$

$$b) \sqrt{81} = 9$$

**Question 8****6 marks**

Use order of operations to complete

$$a) 2 + \overbrace{6 \times 5}^{30} = 32 \quad (1 \text{ mark})$$

$$b) \overbrace{(15 + 5)}^{20} \div \overbrace{(8 - 4)}^4 = 5 \quad (1 \text{ mark})$$

$$c) (17 - \overbrace{5 + 8}^{20}) \times 8 = 160 \quad (2 \text{ marks})$$

$$d) 19 - \overbrace{4 \times 4}^{16} - 1 = 2 \quad (2 \text{ marks})$$

If only have  
1 mark

**Question 9****4 marks**

Use the symbol  $<$  (less than) or  $>$  (greater than) to complete the following:

a)  $5 > -1$

b)  $-12 > -25$

c)  $2^2 > 3$   
 $4$

d)  $(-3)^2 > 5$   
 $-3 \times -3 = 9$

**Question 10****6 marks**

Complete the following number sentences.

a)  $(-6) + 2 = -4$

b)  $(-2) \times 6 = -12$

c)  $8 + (-4) = 4$

d)  $(-2) + 4 + (-7) = -5$

e)  $7 - (-6) = 13$

f)  $15 \div (-3) = -5$

**Question 11****2 marks**

Rewrite these numbers in ascending order

a)  $5, -5, 10, 25, 0$   $-5, 0, 5, 10, 25$

b)  $6, -3, 4, -2, -5$   $-5, -3, -2, 4, 6$

