Roots, Powers and Primes

30 marks



2.





Using only the numbers in the cloud, write down

(i)	all the multiples of 6,	
(ii)	all the square numbers,	
(iii)	all the factors of 12,	
(iv)	all the cube numbers.	

(Total 4 marks)

3. Here is a list of eight numbers.

4.

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(a)	Fron	n the l	ist, write	e down	I						
	(i)	a sq	uare nui	mber,							
	(ii)	a nu	mber th	at is a	multip	ole of 7,					
	(iii)	two	number	rs that a	are fac	tors of 4	0,				
	(iv)	two	numbor	ro with	0.6000	of 50				and	
	(1V)	two	number	is with	a sum	01 39.				and	
(b)	Tony says that "6 is a cube number because $2^3 = 6$ ". Tony is wrong. Explain why.										
					•••••						(1) (Total 5 marks)
Here	e is a li	st of 8	numbe	rs.							 (Total 5 marks)
Here II	is a li: I6	st of 8	number 3 3	rs. 1 6	68	69	82	88			 (Total 5 marks)
Here II (a)	is a lis i6 Writ	st of 8 IE e dow	numbe: 3 3 n two n	rs. 6 umbers	68 s from	69 the list v	82 vith a sur	88 n of 87			 (Total 5 marks)
Here II (a)	is a lis i6 Writ	st of 8 IE e dow	numbe 3 3 n two n	rs. 6 umbers	68 s from	69 the list v	82 vith a sur	88 n of 87			(1) (Total 5 marks)
Here II (a) (b)	 is a lit I6 Writ Writ	st of 8 IE e dow e dow	numbe: 3 3 n two n n a num	rs. 6 umbers	68 s from	69 the list v	82 vith a sur	88 n of 87			
Here II (a) (b)	 is a lis I6 Writ Writ (i)	st of 8 IE e dow e dow a mu	number 3 3 n two n n a num altiple o	rs. 6 umbers iber fro	68 s from	69 the list v list whic	82 vith a sur	88 n of 87			
Here II (a) (b)	 e is a lis I6 Writ Writ (i)	st of 8 IE e dow e dow a mu	number 3 3 n two n n a num ultiple o	rs. 6 umbers iber fro f 9,	68 s from om the	69 the list whic	82 with a sur	88 n of 87			(1) (Total 5 marks) (1)
Here II (a) (b)	 e is a lit I6 Writ (i) (ii)	st of 8 IE e dow e dow a mu a sq	numbe 3 3 1 1 1 1 1 1 1 1	rs. 6 umbers iber fro if 9, mber.	68 s from om the	69 the list v list whic	82 with a sur	88 n of 87			(1) (Total 5 marks) (1)
Here II (a) (b)	 is a lis I6 Writ (i) (ii)	st of 8 IE e dow e dow a mu a sq	numbe 3 3 n two n n a num ultiple o uare num	rs. 6 umbers iber fro if 9, mber.	68 s from om the	69 the list v list whic	82 vith a sur	88 n of 87			(1) (Total 5 marks) (1) (2)
Here II (a) (b)	 e is a lis l6 Writ (i) (ii)	st of 8 IE e dow e dow a mu a sq	number 3 3 n two n n a num ultiple o uare num mul	rs. 6 umbers iber fro f 9, mber.	68 s from om the	69 the list whice	82 with a sur ch is	88 n of 87			(1) (Total 5 marks) (1) (2)

11 is a of 88

(1)

Here are the same 8 numbers drawn larger.

5.

		11	I 6	18	3	6					
		68	69	82	8	8					
(d)	From these numbers, write down a number which has										
	(i)	exactly o	one line of sy								
	(ii)	2 lines of	f symmetry a	 order 2,							
	(iii)	rotationa	l symmetry	of order 2 bi	ut no line	es of sy	 mmetry.				
								(3) (Total 7 marks)			
Here	e is a lis	st of numb	ers.								
	17	24	25	26	35	43	44				
From	n the n	umbers in	the list, write	e down							
(i)	the o	odd number	r that is large	er than 40,							
(ii)	the n	umber that	t is a multipl	e of 7,							
(iii)	two i	numbers th	at have a dif	fference of 2	20,						
(iv)	the n	umber that	t has the san	ne value as 2	$2+3\times5$						
								(Total 4 marks)			

6.(a) Write 0.37 as a fraction.

7.

(1) (b) Write down **all** the factors of 21 (2) (Total 3 marks) 2 3 4 5 6 7 8 From the list of numbers, write down (i) the square number, (ii) the cube number, (iii) the square root of 9.

(Total 3 marks)

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