

Skill

Group A - Odd and even numbers

Use the clues to identify the numbers described below:

- 1) The greatest odd number formed by the digits 2, 8 and 5
- 2) The smallest even number formed by the digits 4, 3, 1 and 6
- 3) The smallest odd number formed by the digits 7, 2 and 9
- 4) The greatest even number formed by the digits 5, 7, 6 and 1
- 5) The smallest odd number formed by the digits 4, 7, 3 and 2
- 6) The greatest odd number formed by the digits 1, 9 and 8
- 7) All possible odd numbers formed by the digits 7, 4 and 9
- 8) All possible even numbers formed by the digits 2, 5 and 3
- **9)** All possible odd numbers formed by the digits 3, 6 and 2
- 10) All possible even numbers formed by the digits 6, 1 and 8
- 11) All possible even numbers formed by the digits 6, 3 and 7
- 12) All possible odd numbers formed by the digits 9, 5 and 6

Group B - Prime numbers and composite numbers

Decide whether the numbers below are prime or composite:

1) 67	2) 530	3) 41
4) 825	5) 19	6) 87
7) 62	8) 293	9) 157
10) 68	11) 91	12) 383



Group C - Types of number problem solving

Use the clues to identify the numbers described below:

- **1)** A prime number that is a factor of 16
- 2) A two-digit triangular number that is a multiple of 5
- 3) A two-digit number that is:
 - a square number
 - greater than 10
 - a number with only 3 factors
- 4) A two-digit number that is:
 - a triangular number
 - a multiple of 7
 - a number with 4 factors
- 5) A square number that is:
 - less than 100
 - a triangular number
 - not 1
- 6) A prime number between 20 and 30
- 7) Two prime numbers with a product of 39
- 8) Two square numbers that add to give a total of 100
- 9) A two-digit number that is:
 - a square number
 - a cube number
 - not 1
- 10) The smallest number greater than 200 that is a multiple of 6
- 11) The first even number that is a multiple of 5 and 7
- 12) Two square numbers that add to give a total of 85



Applied

1) Sort the square and cube numbers into the Venn diagram.



2) Complete the sum below, using all of the numbers 1, 2, 3, 4, 5 and 6, to find the smallest odd number.



3) Complete the sum below, using all of the numbers 1, 2, 3, 4, 5 and 6, to find the biggest odd number.





4) Match the square and cube numbers to the correct cards.



5) Use the 5 cards shown to complete the statements below.





Types of Number - Exam Questions

2)

(a)	The square of 6	(1)
(b)	The square root of 64	(1)
(c)	The cube root of 27	(1)
(d)	The next prime number after 23	(1)
		(4 marks)
Here	is a list of numbers.	

6, 7, 9, 11, 13, 20, 26, 47, 51

From this list write down:

(a)	An even number	(1)
(b)	A square number	(1)
(c)	Two numbers with a sum of 37	(1)
(d)	Two numbers with a difference of 25	(1)
(e)	A multiple of 5	(1)
(f)	A factor of 33	(1)
		(6 marks)



Types of Number - Exam Questions



56	20	26
0	33	28
25	12	

From the box write down:

(a)	A square number	(1)
(b)	A number that is a multiple of 7	(1)
(c)	Two numbers that are factors of 40	(2)
(d)	Two numbers with a sum of 59	(2) (6 marks)
		(0 marks)



	Question	Answer
	Skill Questions	
Group A	Use the clues to identify the numbers described below:	
	1) The greatest odd number formed by the digits 2, 8 and 5.	1) 825
		2) 1346
	3) The smallest odd number formed by the digits 7, 2 and 9.	3) 279
	4) The greatest even number formed by the digits 5, 7, 6 and 1.	4) 7516
	5) The smallest odd number formed by the digits 4, 7, 3 and 2.	5) 2347
	6) The greatest odd number formed by the digits 1, 9 and 8.	6) 981
	7) All possible odd numbers formed by the digits 7, 4 and 9.	7) 479, 497, 749, 947
	8) All possible even numbers formed by the digits 2, 5 and 3.	8) 352, 532
	9) All possible odd numbers formed by the digits 3, 6 and 2.	9) 263, 623
	10) All possible even numbers formed by the digits 6, 1 and 8.	10) 168. 186, 618, 816
	11) All possible even numbers formed by the digits 6, 3 and 7.	11) 376, 736
	12) All possible odd numbers formed by the digits	12) 569, 659, 695, 965
	9, 5 and 6.	



Group BDecide whether the numbers below are prime or composite:I) Prime1) 671) Prime2) Composite (2 × 5 × 53)3) 413) Prime4) 8254) 8254) Composite (3 × 5² × 11)5) 195) Prime6) 876) Composite (3 × 29)7) 627) Composite (2 × 31)8) 2939) Prime9) 1579) Prime10) 6810) Composite (2² × 17)11) 9111) Composite (2² × 17)11) 9111) Composite (7 × 13)12) 38312) PrimeGroup CUse the clues to identify the numbers described below:1) A prime number that is a factor of 161) 22) A two-digit triangular number that is a nuttiple of 53) A two-digit triangular number that is a nuttiple of 53) A two-digit triangular number with 4 factors that is a multiple of 75) A square number bet is not 16) A prime number between 20 and 306) 23 or 297) Two prime numbers with a product of 397) 3 and 138) Two square number sthat add to give a total of 1009) A number that is a square number and a cube number that is not 19) A number that is not 110) The smallest number greater than 200 that is a multiple of 6			
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		cube number that is not 1	
200 that is a multiple of 6			10) 204
11) The first even number that is a multiple 11) 70			11) 70
of 5 and 7			
12) Two square numbers that add to give a 12) 36 and 49			12) 36 and 49
total of 85		total of 85	



	Question	Answer
	Applied Questions	
1)	Sort the square and cube numbers into the Venn diagram. 7^2 8^3 6^2 12^3 3^3 9^2	Less than 100 7 ² 3 ³ 9 ² 12 ³
2)	Complete the sum below, using all of the numbers 1, 2, 3, 4, 5 and 6, to find the smallest odd number.	412 - 365 = 47
3)	Complete the sum below, using all of the numbers 1, 2, 3, 4, 5 and 6, to find the biggest odd number.	654 - 123 = 531







Types of Number - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	Identify:		
(a)	The square of 6	(a) 36	(1)
(b)	The square root of 64	(b) 8	(1)
(c)	The cube root of 27	(c) 3	(1)
(d)	The next prime number after 23	(d) 29	(1)
2)	Here is a list of numbers.		
	6, 7, 9, 11, 13, 20, 26, 47, 51		
(-)	From this list write down	(a) (20 av 2((1)
(a)	An even number	(a) 6, 20 or 26	(1)
	A square number	(b) 9	(1)
(c)	Two numbers with a sum of 37	(c) 26 and 11	(1)
(d)	Two numbers with a difference of 25	(d) 26 and 51	(1)
(e)	A multiple of 5	(e) 20	(1)
(f)	A factor of 33	(f) 11	(1)
3)	5 20 26 6 33 28 25 12 12		
(a)	A square number	(a) 25	(1)
(b)	A number that is a multiple of 7	(b) 28	(1)
(c)	Two numbers that are factors of 40	(c) 5 and 20	(1)
(d)	Two numbers with a sum of 59	(d) 26 and 33	(1)

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