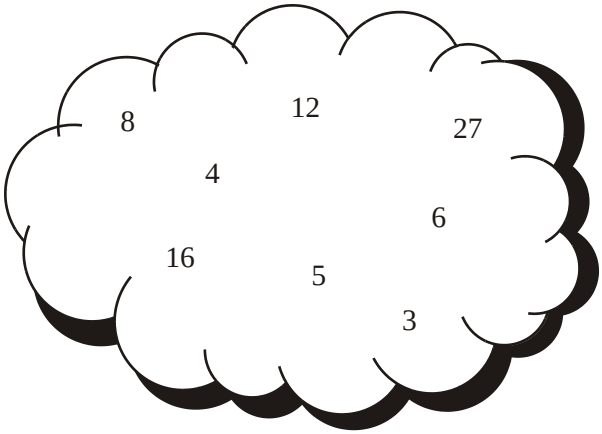
1.



Using only the numbers in the cloud, write down

(i) all the multiples of 6, ... 6, 12 .....

(ii) all the square numbers, ... 4, 16 .....

(iii) all the factors of 12, ... 3, 4, 6, 12 .....

(iv) all the cube numbers. ..... 8, 27 .....

(4 marks)

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2. Here is a list of numbers.

2 5 7 8 9 12

Write down a number from the list which is

(i) a multiple of 6, ... 12 .....

(ii) a factor of 15, ... 5 .....

(iii) a square number. ..... 9 .....

(3 marks)

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3. Here is a list of numbers.

3 8 11 25 33 41

Write down a number from the list which is

(a) an even number, ... 8 .....

(1)

(b) a square number, ... 25 .....

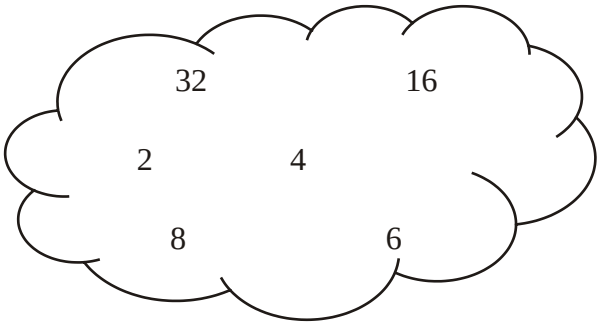
(1)

(c) a multiple of 11 ..... 11 (or 33) .....

(1)

(3 marks)

4.



From the numbers in the cloud, write down

(a) a square number,

4 (or 16)

(1)

(b) the square root of 16,

4

(1)

(c) the cube of 2,

8

(1)

(d) the prime number.

2

(1)

(4 marks)

5.

2 3 4 5 6 7 8

From the list of numbers, write down

(i) the square number,

4

(ii) the cube number,

8

(iii) the square root of 9.

3

(3 marks)

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6. Here is a list of numbers.

17 24 25 26 35 43 44

From the numbers in the list, write down

(i) the odd number that is larger than 40,

43

(ii) the number that is a multiple of 7,

35

(iii) two numbers that have a difference of 20,

24, 44

(iv) the number that has the same value as $2 + 3 \times 5$

17

(4 marks)

7. Here is a list of numbers.

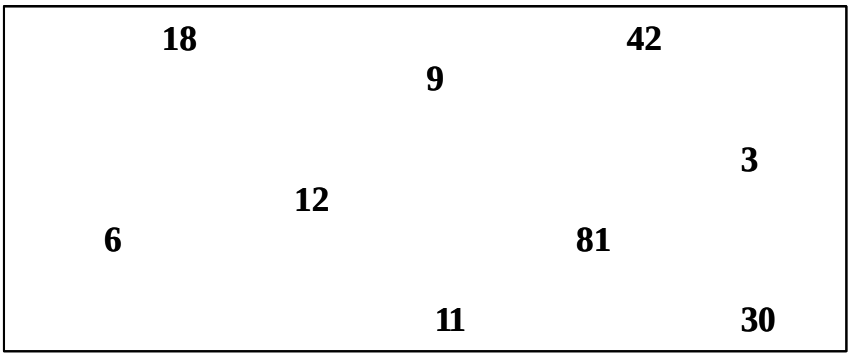
8 15 23 27 32 33

From the numbers in the list, write down a number that is prime.

23

(1 marks)

8.



From the numbers in the rectangle,

(i) write down a multiple of 4, 12

(ii) write down a factor of 21, 3

(iii) write down a prime number. 3 (or 11)

(3 marks)

9. Here is a list of eight numbers.

5 6 12 20 25 26 28 33

(a) From the list, write down

(i) a square number,

25

(ii) a number that is a multiple of 7,

28

(iii) **two** numbers that are factors of 40,

5 and 20

(iv) **two** numbers with a sum of 59.

26 and 33

(4)

(b) Tony says that "6 is a cube number because $2^3 = 6$".
Tony is wrong. Explain why.

$2^3 = 2 \times 2 \times 2 = 8$

(1)

(5 marks)

10.

8				
	9			10
		12		
30			3	
	5			20

Using only the numbers in the rectangle, write down

(i) an even number

8 (10, 12, 20, 30)

(ii) a multiple of 4

8 (12, 20)

(iii) a factor of 15

3 (or 5)

(3 marks)

11.

factor	multiple	square	square root	half

(a) Use a word from the list above to complete the following sentence.

10 is a .....multiple..... of 5

(1)

(b) From the list below, write down the odd number.

10 15 18 20 24

.....15.....

(1)

(c) From the list below, write down the square number.

10 12 14 16 18 20

.....16.....

(1)

(3 marks)

---

12. Here is a list of numbers.

2 4 5 6 7 8

From the list of numbers write down

(i) an odd number .....5 (or 7).....

(ii) a square number .....4.....

(iii) a multiple of 3 .....6.....

(iv) a factor of 10 .....2 (or 5).....

(4 marks)

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13. Here is a list of 8 numbers.

4 7 10 16 18 20 21 32

From the numbers in the list write down a number that is

(i) an odd number .....7 (or 21).....

(ii) a multiple of 5 .....10 (or 20).....

(iii) a square number .....4 (or 16).....

(iv) a factor of 42 .....7 (or 21).....

(4 marks)

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14. Here is a list of 8 numbers.

3 5 6 8 9 10 11 16

From the list, write down

(a) **two** odd numbers,

3 and 5 (or 9, 11)

(1)

(b) **two** numbers with a sum of 15

5 and 10 (or 6 and 9)

(1)

(c) a factor of 12

3 (or 6)

(1)

(d) a multiple of 4

8 (or 16)

(1)

James says that 10 is a square number because $5^2 = 10$

(e) James is wrong.
Explain why.

$5^2 = 5 \times 5 = 25$

(1)

(5 marks)

15. (a) Here is a list of numbers.

3	5	7	8	9	10	12

From the list of numbers, write down

(i) a multiple of 6 ..... 12 .....

(ii) a factor of 14 ..... 7 .....

(iii) a square root of 25 ..... 5 .....

(3)

(b) Scott says

'If you add two different square numbers, you will always get an even number.'

Show that Scott is **wrong**.

4 + 9 = 13

(Any even square number + any odd square number)

(2)

(5 marks)

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16. Here is a list of numbers.

2 5 8 10 13 14 16 18

(a) From the list, write down

(i) an odd number, ... 5 (or 13) .....

(ii) the multiple of 6, ... 18 .....

(iii) the square number. ..... 16 .....

(3)

Erin says that 8 is a prime number.

(b) Erin is wrong.
Explain why.

Prime numbers have only two factors.

8 = 2 x 4 8 = 1 x 8

8 has more than 2 factors.

(1)

(4 marks)