




GCSE Mathematics

Intermediate Tier

Booklet 1

Number Types

Student's Name			
Lecturer's Name			
Mark	/		
Student Reflection			

Make sure you show your methods and calculations.

Calculators are / are not to be used on this booklet.

Types of Number

Odd Number

Anything ending in 1, 3, 5, 7 or 9

Even Number

Any number ending in 0, 2, 4, 6, 8

Square number

Found by multiplying a number by itself 1, 4, 9, 16, 25, 36, 49, 64,.....

$$1 \times 1 = 1$$

$$2 \times 2 = 4$$

$$3 \times 3 = 9$$

$$4 \times 4 = 16$$

$$5 \times 5 = 25$$

$$6 \times 6 = 36$$

Factor

A number that goes exactly into another number

Factors of 20 = 1, 2, 4, 5, 10, 20

As $1 \times 20 = 20$, $2 \times 10 = 20$, $4 \times 5 = 20$

Prime Number

A number that only divides by 1 and itself

2, 3, 5, 7, 11, 13, 17, 19, 23, 29

Multiple

A number in a times table.

Eg Multiples of 3, numbers in 3 times table.

3, 6, 9, 12, 15, 18, 21, 24

1. (a) (i) Write down, in figures, the number eight thousand, two hundred and four.

..... [1]

- (ii) Write down, in words, the number 4 635.

..... [1]

- (b) Add together 78 and 96.

..... [1]
.....
.....

- (c) Write the number 8726

- (i) correct to the nearest 10,

..... [1]

- (ii) correct to the nearest 100.

..... [1]

- (d) Write down the value of the number 6 in the number 9657.

..... [1]

- (e) Using **only numbers in the following list**,

43 12 55 54 37 16 47

write down

- (i) two numbers that add up to 90,

..... [1]

- (ii) two numbers with a difference of 25,

..... [1]

- (iii) a multiple of 5.

..... [1]

- (f) Multiply 43 by 2.

..... [1]

2. (a) Write the following numbers in order of size, starting with the smallest.

402 42 419 91 420 194 94

[1]

- (b) Use the numbers 1, 3, 7 and 8 to make the following calculation correct :

$$\begin{array}{|c|c|} \hline & \\ \hline \end{array} + \begin{array}{|c|c|} \hline & \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 1 & 0 & 0 \\ \hline \end{array}$$

[1]

- (c) Four numbers are written on cards:

5

4

9

6

Rearrange these four cards to form

- (i) the largest possible four-digit number,

[1]

- (ii) the smallest possible four-digit number,

[1]

- (iii) the smallest possible four-digit even number.

[1]

- (d) Write down all the factors of 20.

[2]

- (e) Write down

- (i) the sum of 26 and 37,

[1]

- (ii) the number which must be added to 64 to make 103,

[1]

- (iii) the answer when 56 is divided by 8.

[1]

3. (a) Four numbers are written on cards:

2	3	4	5
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Write down **all the odd two-digit numbers** that can be made using these cards.

[2]

- (b) Write down the multiple of 7 that is between 40 and 45.

[1]

- (c) Write down all the factors of 18.

[1]

- (d) Arrange the following numbers in ascending order:

305	355	503	35	335	533	350	530	553
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[2]

- (e) Using **only numbers in the following list**,

76 22 29 58 16 39 48

write down

- (i) two numbers that add up to 80,

[1]

- (ii) the number that you have to add to 17 in order to get 46,

[1]

- (iii) a multiple of 6,

[1]

- (iv) the answer to $48 \div 3$.

[1]

4. (a) Find the sum of the numbers 429 and 336.

[2]

- (b) Find the difference between the numbers 579 and 267.

[2]

- (c) Write down all the factors of 36.

[2]

- (d) Using **only numbers in the following list**,

36 78 48 60 58 22 39

write down

- (i) two numbers that have a sum of 100,

[1]

- (ii) the number that must be added to 36 to make 94,

[1]

- (iii) a multiple of 8,

[1]

- (iv) a multiple of 13.

[1]

5. (a) (i) Write down, in figures, the number five thousand and twenty nine.

[1]

- (ii) Write down, in words, the number 85 105.

[1]

- (b) Write down all the factors of 15.

[1]

- (c) Write the number 5672

- (i) correct to the nearest 10,

[1]

- (ii) correct to the nearest 100.

- (d) Write down the value of the number 3 in the number 19 637.

[1]

[1]

- (e) Using **only numbers in the following list**,

43 41 47 54 37 16 55

write down

- (i) two numbers that add up to 80,

[1]

- (ii) two numbers with a difference of 25,

[1]

- (iii) a multiple of 5,

[1]

- (iv) a multiple of 9.

[1]

6. Write down all the prime numbers between 10 and 20.

[4]

7. Identify any prime numbers from the following list.

25 37 43 42 45 49 [2]

8. Write down all the prime numbers between 50 and 60.

[2]

9. Using the numbers from the following list (you can use a calculator)

26 27 28 29 30 31 32 33 34

Write down

- (a) A factor of 96 _____
- (b) A cube number _____
- (c) A multiple of 8.5 _____
- (d) A prime number _____

- 10.** Using the numbers from the following list (you can use a calculator)

57 58 59 60 61 62 63 64 65

Write down

- (a) A prime number _____
- (b) A cube number _____
- (c) A factor of 186 _____
- (d) A multiple of 7.25 _____