

**Numbers operations and integers – 2021/20 GCSE Mathematics Foundation****1. Nov/2021/Paper\_J560/01/No.2**

Write down each of the following.

(a) An odd number.

(a) ..... [1]

(b) A square number.

(b) ..... [1]

(c) A prime number between 30 and 40.

(c) ..... [1]

(d) A multiple of 8.

(d) ..... [1]

**2. Nov/2021/Paper\_J560/01/No.19**

Li throws two fair four-sided dice, each numbered 1, 2, 3 and 4.

Li multiplies together the two numbers that the dice land on to produce a score.

Find the probability that Li's score is a prime number.

..... **[4]**

**3. Nov/2021/Paper\_J560/02/No.2**

Work out.

**(a)**  $-7 + 10$

**(a)** ..... **[1]**

**(b)**  $4 \times -2$

**(b)** ..... **[1]**

## 4. Nov/2021/Paper\_J560/02/No.5

(a) Work out.

$$4 + 16 \div 2$$

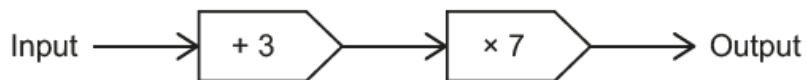
(a) ..... [1]

(b) Insert one pair of brackets to make the calculation correct.

$$5 \times 7 + 1 \div 9 = 4 \quad [1]$$

## 5. Nov/2021/Paper\_J560/02/No.8

Here is a function.



(a) Find the output when the input is 2.

(a) ..... [1]

(b) Find the input when the output is 63.

(b) ..... [2]

## 6. Nov/2021/Paper\_J560/03/No.2

Use your calculator to work out.

(a)  $\sqrt{196} + 29$

(a) ..... [1]

(b)  $4^5$

(b) ..... [1]

## 7. Nov/2021/Paper\_J560/03/No.7

Rowan's bath has a hot tap and a cold tap.

When turned on full, each tap on its own will fill the bath in 6 minutes.

Rowan turns **both** taps on full.

How long will it take to fill the bath?

..... minutes [2]

**8. Nov/2020/Paper\_J560/02/No.1****(a)** Work out.

**(i)**  $-1 + 6$

**(a)(i)** ..... **[1]**

**(ii)**  $7 - -3$

**(ii)** ..... **[1]****(b)** Write down two prime numbers between 10 and 20.**(b)** ..... and ..... **[2]**

**9. Nov/2020/Paper\_J560/02/No.2**

**(a) (i)** Write 350 centimetres in metres.

**(a)(i)** ..... m [1]

**(ii)** Write 1.52 litres in millilitres.

**(ii)** ..... ml [1]

**(b)** Work out.

$$5.7 \text{ cm} + 30 \text{ mm}.$$

Give your answer in centimetres.

**(b)** ..... cm [2]

**10. Nov/2020/Paper\_J560/02/No.19**

A clock chimes every 20 minutes.

A light flashes every 8 minutes.

The clock chimes and the light flashes together at 08:00.

How many times between 08:01 and 12:30 will the clock chime and the light flash together?

Show your working.

..... [5]

11. Nov/2020/Paper\_J560/03/No.1

5 is a factor of 20.

(a) Write down another factor of 20.

(a) ..... [1]

(b) Write down a multiple of 20.

(b) ..... [1]

12. Nov/2020/Paper\_J560/03/No.3

Alex has a number game.

He must put down tiles to make two calculations with the same answer.

Here is what Alex put down.

2	−	3	×	2	=	3	−	5
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Is he correct?

Show how you decide.

Alex is ..... because .....

.....

..... [2]