

**AQA - Numbers – GCSE 2022 Mathematics**

1. *June/2022/Paper\_8300/3F/No.2*

Circle the number that is a factor of 10

[1 mark]

7

6

5

4

2. *June/2022/Paper\_8300/3F/No.5(b)*

(b) Times for the three parts of a journey are

- 20 minutes
- 40 minutes
- 1 hour 30 minutes.

Work out the **total** time for the journey.

Give your answer in hours.

[2 marks]

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Answer \_\_\_\_\_ hours

3. June/2022/Paper\_8300/3F/No.15

(a) Work out the multiple of 60 that is closest to 400

[2 marks]

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Answer \_\_\_\_\_

(b) Work out the highest common factor (HCF) of 12 and 18

[2 marks]

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Answer \_\_\_\_\_

4. June/2022/Paper\_8300/3F/No.17

(a) Calculate  $2^7 \times 5^2$

[1 mark]

Answer \_\_\_\_\_

(b) Calculate  $\sqrt[4]{20\,736}$

[1 mark]

Answer \_\_\_\_\_

5. June/2022/Paper\_8300/3F/No.28

Tom and Adil are the two runners in a 200-metre race.

Tom completes the race in 24 seconds.

Adil completes the race at an average speed of 28.8 kilometres per hour.

Who wins the race?

You **must** show your working.

[3 marks]

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Answer \_\_\_\_\_

## 6. June/2022/Paper\_8300/3H/No.26

$Q$  and  $R$  are two numbers.

As a product of prime factors,

$$Q = 2^3 \times 3 \times a^3$$

$$R = 2^4 \times 3^2 \times a^2$$

- (a) The highest common factor (HCF) of  $Q$  and  $R$  is 4056

Work out the value of  $a$ .

[2 marks]

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$$a = \underline{\hspace{15em}}$$

- (b) Work out the lowest common multiple (LCM) of  $Q$  and  $R$ .

[2 marks]

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$$\text{Answer } \underline{\hspace{15em}}$$