

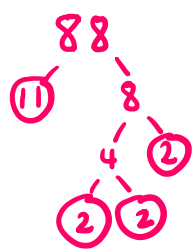


Prime Factorisation



REVISE THIS TOPIC

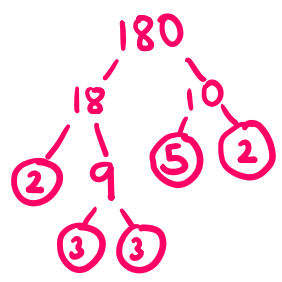
1 Write 88 as a product of its prime factors.



$$2^3 \times 11$$

(Total for Question 1 is 2 marks)

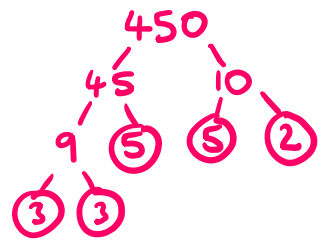
2 Write 180 as a product of its prime factors.



$$2^2 \times 3^2 \times 5$$

(Total for Question 2 is 2 marks)

3 Write 450 as a product of its prime factors.

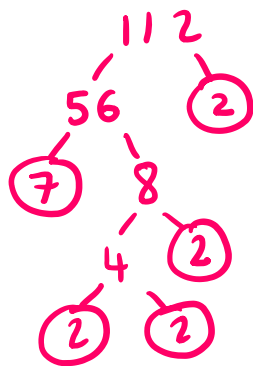


$$2 \times 3^2 \times 5^2$$

(Total for Question 3 is 2 marks)



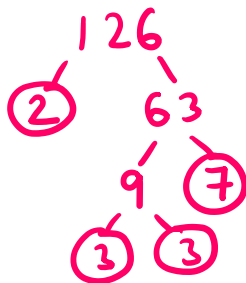
4 Write 112 as a product of its prime factors.



$$2^4 \times 7$$

(Total for Question 4 is 2 marks)

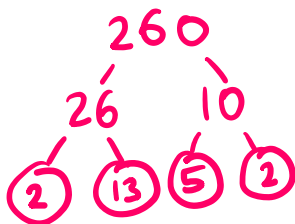
5 Write 126 as a product of its prime factors.



$$2 \times 3^2 \times 7$$

(Total for Question 5 is 2 marks)

6 Write 260 as a product of its prime factors.

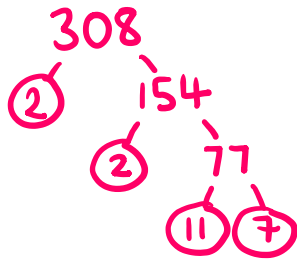


$$2^2 \times 5 \times 13$$

(Total for Question 6 is 2 marks)



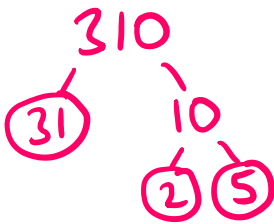
7 Write 308 as a product of its prime factors.



$$\underline{2^2 \times 7 \times 11}$$

(Total for Question 7 is 2 marks)

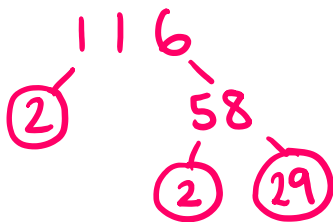
8 Write 310 as a product of its prime factors.



$$\underline{2 \times 5 \times 31}$$

(Total for Question 8 is 2 marks)

9 Write 116 as a product of its prime factors.



$$\underline{2^2 \times 29}$$

(Total for Question 9 is 2 marks)



10 Adil was asked to express 360 as a product of its prime factors.

He says,

“The answer is $2^3 \times 9 \times 5$ ”

Is Adil correct?

You must give a reason for your answer.

No - 9 is not prime.

It should be $2^3 \times 3^2 \times 5$

(Total for Question 10 is 1 mark)

11 Becca thinks of two numbers, A and B .

$$A = 2^3 \times 3^4 \times 11$$

$$B = 10A$$

Write B as a product of its prime factors.

$$10 = 2 \times 5$$

$$2^4 \times 3^4 \times 5 \times 11$$

(Total for Question 11 is 2 marks)

12 Cameron thinks of two numbers, C and D .

$$C = 2 \times 3^3 \times 5^4$$

$$C : D = 3 : 5$$

Write D as a product of its prime factors.

$$\begin{array}{l} 3 : 5 \\ \div 3 \downarrow \quad \downarrow \div 3 \\ 1 : \frac{5}{3} \end{array}$$

$$D = \frac{C \times 5}{3}$$

$$2 \times 3^2 \times 5^5$$

(Total for Question 12 is 2 marks)

