



THIRD SPACE
LEARNING

GCSE Exam Questions

Prime Factors | Number

GCSE Exam Questions: Prime Factors

- 1) Express 108 as a product of its prime factors.

(3 marks)

- 2) Write 36 as a product of its prime factors.

Give your answer in index form.

(3 marks)

- 3) A number is written as a product of its prime factors as $2^3 \times 3 \times 5$.

Work out the number.

(2 marks)

- 4) Given that $p = 2^4 \times 3$

- (a) Calculate $10p$

(2)

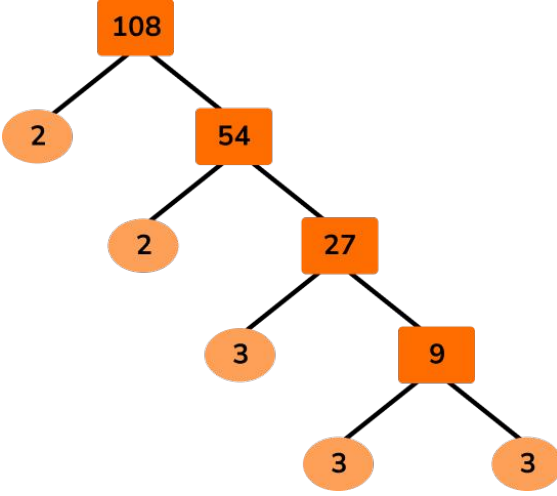
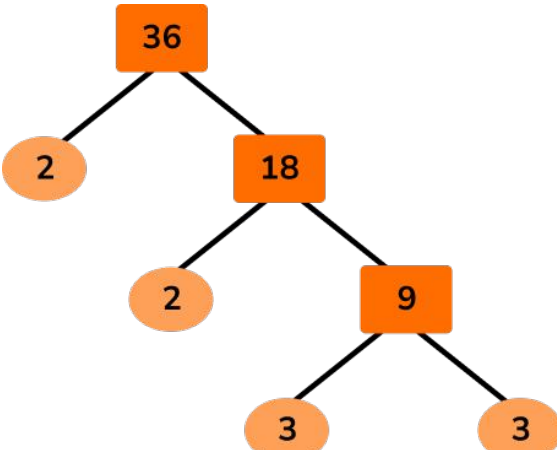
- (b) Write $\frac{p}{4}$ as a product of its prime factors.

(1)

- (c) Write $20p$ as a product of primes.

(2)
(5 marks)

GCSE Exam Questions: Prime Factors Answers

	Question	Answer	Marks
1)	Express 108 as a product of its prime factors.	 Any correct factor pair of 108 A fully correct prime factor tree $2 \times 2 \times 3 \times 3 \times 3$ or $2^2 \times 3^3$	(1) (1) (1)
2)	Write 36 as a product of its prime factors. Give your answer in index form.	 Any correct factor pair of 36 A fully correct prime factor tree $2^2 \times 3^2$	(1) (1) (1)
3)	A number is written as a product of its prime factors as $2^3 \times 3 \times 5$. Work out the number.	$8 \times 3 \times 5$ 120	(1) (1)
4) (a)	Given that $p = 2^4 \times 3$ Calculate $10p$.	(a) $2^4 \times 3 = 48$ $48 \times 10 = 480$	(1) (1)
(b)	Write $\frac{p}{4}$ as a product of its prime factors.	(b) $2^2 \times 3$	(1)
(c)	Write $20p$ as a product of primes.	(c) $20 \times 2^4 \times 3$ $2^6 \times 3 \times 5$	(1) (1)

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