



# New Maths GCSE: N4 - Prime Numbers and Prime Factors

Name:.....

Date:.....

**1      2      15      27**

Which of the following numbers is prime?

**A)**      1              **B)**      2

**C)**      15              **D)**      27

Correct Answer: A B C D

Explanation:

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**9      21      29      33**

Which of the following numbers is prime?

**A)**      9              **B)**      21

**C)**      29              **D)**      33

Correct Answer: A B C D

Explanation:

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**Which one of the lists below contains *only* prime numbers?**

**(a)** 1, 23, 37, 41              **(b)** 9, 23, 31, 39

**(c)** 23, 31, 43, 49              **(d)** 2, 23, 29, 37

Correct Answer: A B C D

Explanation:

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Which number should replace the star in the factor tree?

**A** 5                      **B** 2  
**C** 10                      **D** 15

Correct Answer: A B C D

Explanation:

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Which numbers should replace the stars in the factor tree?

**A** 4 and 2                      **B** 3 and 3  
**C** 1 and 6                      **D** 3 and 2

Correct Answer: A B C D

Explanation:

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Which numbers should replace the stars in the factor tree?

**A** 3 and 5                      **B** 10 and 5  
**C** 7.5 and 7.5                      **D** You don't need any as 15 is a prime number

Correct Answer: A B C D

Explanation:

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Write 90 as a product of its prime factors

What should go in the shaded box?

**A)** 2 + 3 + 3 + 5                      **B)** 2 x 6 x 5  
**C)** 2 x 3 x 3 x 5                      **D)** 32 x 35

Correct Answer: A B C D

Explanation:

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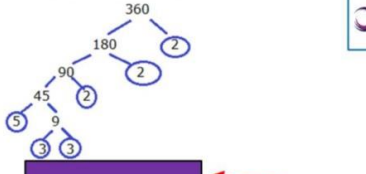
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Write 360 in the form  $2^a \times 3^b \times 5^c$

Questions provided by 



What should go in the shaded box?

**A)**  $a = 2, b = 3, c = 5$     **B)**  $a = 3, b = 2, c = 1$   
**C)**  $a = 8, b = 9, c = 5$     **D)**  $a = 6, b = 6, c = 5$

Correct Answer: A B C D

Explanation:

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$a$  and  $b$  are prime numbers.

$40 = a^3b$

What are  $a$  and  $b$ ?

**A.**  $a = 8, b = 5$     **B.**  $a = 5, b = 2$   
**C.**  $a = 2, b = 5$     **D.**  $a = 8, b = 2$

Correct Answer: A B C D

Explanation:

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