

Prime Numbers - Questions

A Write a prime number between 1 and 100 that:

- 1) Includes the digit 1
- 2) Is even
- 3) Includes the digit 5
- 4) Is the number before to a multiple of 6
- 5) Is the number after a multiple of 7

B Create a prime factor tree for these numbers:

- 1) 12
- 2) 24
- 3) 18
- 4) 20
- 5) 54

- C
- 1) The total of two prime numbers is 36. Write all the possible pairs that would total 36.
 - 2) The total of two prime numbers is 40. Write all the possible pairs that would total 36.
 - 3) Which three different prime numbers have a product of 30?
 - 4) Which three different prime numbers have a product of 165?
 - 5) Which three different prime numbers have a product of 231?
 - 6) I think of a prime number. I multiply it by 10 and round the product to the nearest hundred. My answer is 300. Which prime number(s) could I be thinking of?

Prime Numbers - Answers

Question	Question	Answer
A	Write a prime number between 1 and 100 that: 1. Includes the digit 1 2. Is even 3. Includes the digit 5 4. Is the number before to a multiple of 6 5. Is the number after a multiple of 7	1. 11, 31, 41, 61 or 71 2. 2 3. 5, 53 or 59 4. 5, 11, 17, 23, 29, 41, 47, 53, 59, 71, 83 or 89 5. 29 or 43
B	Create a prime factor tree for these numbers: 1. 12 2. 24 3. 18 4. 20 5. 54	1. 12: 2 and 6. 6: 2 and 3. 2. 24: 2 and 12. 12: 2 and 6. 6: 2 and 3. 3. 18: 3 and 6. 6: 2 and 3. 4. 20: 2 and 10. 10: 2 and 5. 5. 54: 6 and 9. 6: 2 and 3. 9: 3 and 3.
C	Find the possible pairs where: 1. The total of two prime numbers is 36. 2. The total of two prime numbers is 40. 3. Which three different prime numbers have a product of 30? 4. Which three different prime numbers have a product of 165? 5. Which three different prime numbers have a product of 231? 6. Which prime number(s) could I be thinking of?	1. 7 and 29, 13 and 23, 17 and 19 2. 3 and 37, 11 and 29, 17 and 23 3. $2 \times 3 \times 5 = 30$ 4. $3 \times 5 \times 11 = 165$ 5. $3 \times 7 \times 11 = 231$ 6. 29 and 31 could be the original numbers. ($29 \times 10 = 290$. 290 rounded to the nearest 100 is 300. $31 \times 10 = 310$. 310 rounded to the nearest 100 is 300.)

Do you have students who need additional support in math?

Help them to grow in confidence and develop the skills they need with personalized one-on-one math tutoring from specialist tutors.

Visit thirdspacelearning.com/us/ to find out more.



"No matter how much of a good teacher you are, you can never get to 30 children and do 30 different pieces of work and that is what is needed. Because it is one-on-one and to their level, it is the best type of intervention you can have."

Angela Kershaw, Senior Leader
St. Augustine's Academy