

Start here

In the summer holiday Francis went on holiday to Cornwall.
One day she was walking along the coastal path when she stumbled on
what she assumed was a tree root.

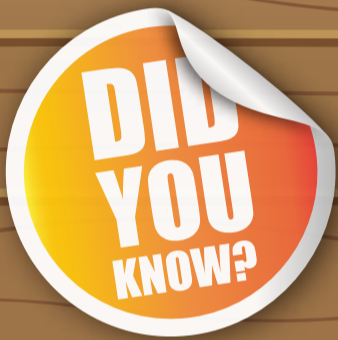
However, when she looked down to investigate she saw a flash of reflected light bouncing from the dusty floor.
To her amazement, she found a treasure chest lying buried in the ground.
The box, which had the date 1543 written in bold letters on the front, was locked with a combination lock.
When Francis lifted up the treasure chest, she found the following note lying underneath:

Your task is to calculate the code for the treasure chest.
If you succeed, The treasure is yours!

If the treasure you wish to see,
Use this code; start with the square of 3.
Multiply by the fourth smallest factor of 28,
And times by the smallest prime greater than 90.
Add the square root of 289,
Then subtract the multiple of 13 that is nearest to 200.
Add all the factors of 64.
Find the total. Then add 10%.
Enter this code and you will see
The purest treasure there ever could be.

SUCCESS CRITERIA

- Understand the terms square, square root, factor, prime and multiple
- To see if a number is prime, test whether it is divisible by any smaller prime numbers
- Work systematically to find all pairs of factors



There are species of Cicada flies in North America which has either 13-year or 17- year life cycles (both prime numbers).
It is believed that this helps them to avoid predators that have two, three or five-year life cycles.

