

Mathematics Problems for week forty-six www.u3a.org.uk posed by Gordon Burgin, Andrew Holt, Rod Marshall, Ian Stewart and David Martin

Week Forty-six

Question 1.

The number of states that joined the United States up to 1849 is twice the number of states that joined between 1850 and 1900. If there were 45 states in the United States in 1900, how many states were there in 1849?

Question 2.

What are the next two numbers in the following mathematical sequence?

1, 12, 25, 42, 61, 84, 113,...

Question 3.

At a lunch stand, each hamburger has 50 more calories than each order of fries. If 2 hamburgers and 3 orders of fries have a total of 1700 calories, how many calories does a hamburger have?

Question 4.

A new unused toilet roll has a diameter of 116 mm. The inner cardboard tube core has a diameter of 46mm. The toilet tissue itself has a nominal thickness of 0.25mm. What is the approximate length of the toilet tissue? [With thanks to u3a Tunbridge Wells Maths and Stats Group]