

Number Nest Weekly Challenge



1. I need a lot of toys. Which of these offers give me the cheapest price for each toy?

- a) Buy 1, get 1 free b) buy 2, get 2 free c) buy 3, get 3 free
d) buy 4, get 4 free e) there's no difference - they are all the same

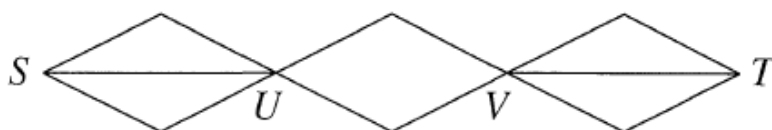
2. The Olympic Velodrome has a 250m track. How many circuits do the cyclists have to do to complete a 30km race?

3. For £2, a stamp machine gives a mixture of 20p and 26p stamps worth a total of £2.02. How many 20p stamps are included?

4. A 'double-decker' sandwich has three slices of bread and two layers of filling (bread/filling/bread/filling/bread). Each slice of bread has to be buttered on each side that is in contact with the filling. I make as many of these sandwiches as possible from a sliced loaf which has 22 usable slices, excluding the crusts which are not used. How many sides of bread do I have to butter?

5. What is the sum of all the prime numbers which are less than 25?

6. How many different routes are there from S to T which go through point U one or less times and go through point V one or less times?



Bonus Question

7. In the diagram $\angle RPM = 20^\circ$ and $\angle QMP = 70^\circ$. What is $\angle PRS$?

