



# Number Nest Weekly Challenge

## 1. Slicing the Pizza

A pepperoni pizza has nine pieces of pepperoni on it in a square pattern as shown. Using 4 straight cuts, without taking your slicer off the board, can you cut through all nine pieces of pepperoni?



## 2. Cutting the Pie

With one straight cut you can slice a pie into two pieces. A second cut that crosses the first one will produce four pieces, and a third cut can produce as many as seven pieces. What is the largest number of pieces that you can get with six straight cuts?

## 3. Time for Toast

An old-fashioned toaster takes slices of bread at a time but only toasts one side each. To toast the other sides, you need to remove them, turn them over and put them back in. It takes exactly one minute for the toaster to toast one side of each piece of bread that it contains. Is it possible to toast both sides of three slices of bread in less than 4 minutes? If so, how?