

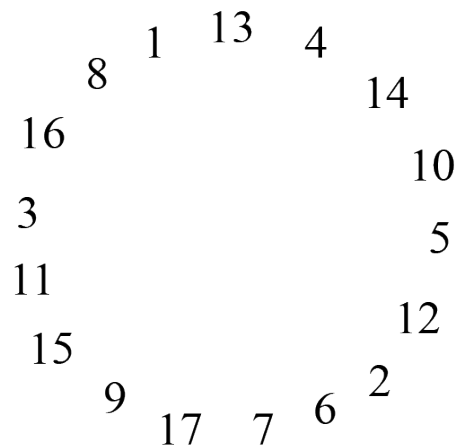


Problem of the Week

Problem E

Stand in a Circle

The numbers from 1 to 17 are arranged around a circle. One such arrangement is shown.



Explain why every possible arrangement of these numbers around a circle must have at least one group of three adjacent numbers whose sum is at least 27.

NOTE:

In solving the above problem, it may be helpful to use the fact that the sum of the first n positive integers is equal to $\frac{n(n+1)}{2}$. That is,

$$1 + 2 + 3 + \dots + n = \frac{n(n+1)}{2}$$

