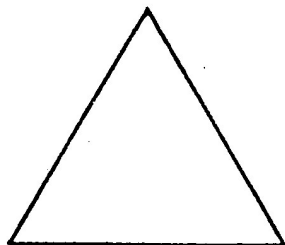
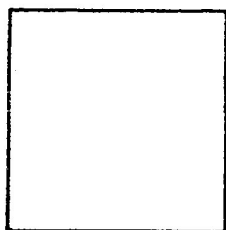


All Possible Diagonals

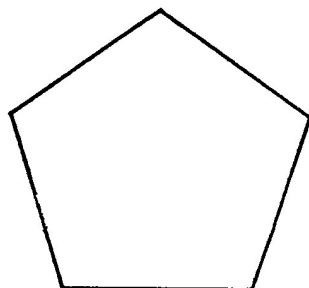
Draw all possible diagonals* in each polygon below and record the number you find in the table.



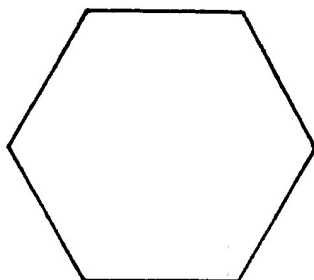
TRIANGLE



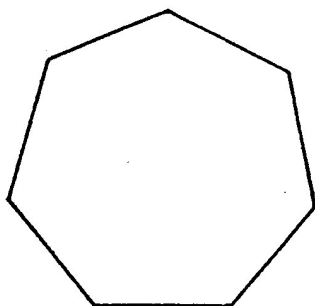
SQUARE



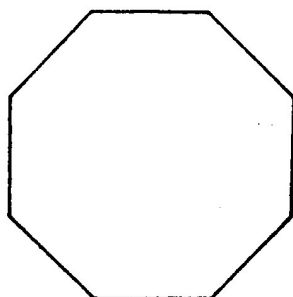
PENTAGON



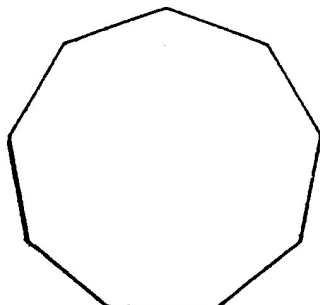
HEXAGON



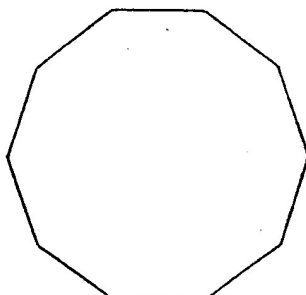
HEPTAGON



OCTAGON



NONAGON



DECAGON

Polygon	Number of Sides	Number of Diagonals	Number of Sides plus Diagonals
Triangle	3	0	3
Square	4		
Pentagon			
Hexagon			
Heptagon			
Octagon			
Nonagon			
Decagon			
<i>N</i> -gon			

Note: An *N*-gon is a polygon with *N* sides.

Do you recognize the kind of numbers that are in the right column?

* Be sure to be as precise as possible in drawing your diagonals so that beautiful patterns can emerge!