The Interior Angles of Regular Polygons

A square could be drawn by drawing a line, turning 90°, drawing a second line of the same length, turning 90°, repeating this until you have drawn a square. You will make a final 90° turn to face the direction in which you started.

How many turns of 90° would you make? ______________________________

What is the total turn?______________________________

What angle would you turn to draw an equilateral triangle?______________________________

What would be the total turn for an equilateral triangle?______________________________

How could you use the turn each time to find the interior angle of each regular polygon?

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How would you calculate the interior angle from the angle of turn?

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Use your answers to the above questions to find the turn for each regular polygon, and therefore the interior angle. Record your results in the table below.

Shape	Number of Angles	Angle of Turn	Interior Angle	Total of All Interior Angles
e.g. equilateral triangle	3	120°	60°	180°

Write a formula for the turn needed for any polygon with n number of sides.

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What is the interior angle for regular polygons with 15, 20, 30, 60 and 100 sides?

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