C **28. a.** Substitute each of the integers from 1 to 9 for n in the expression $n^2 + n + 11$.

  b. Using inductive reasoning, guess what kind of number you will get when you substitute any positive integer for n in the expression $n^2 + n + 11$.

  c. Test your guess by substituting 10 and 11 for n.

29. Complete the table for convex polygons.

Number of sides	3	4	5	6	7	8	n
Number of diagonals	0	2	?	?	?	?	?

30. Find the sum of the measures of the angles formed at the tips of each star.

  a. five-pointed star   **b.** six-pointed star
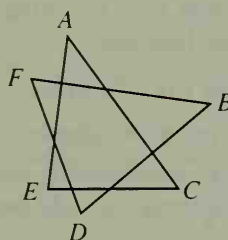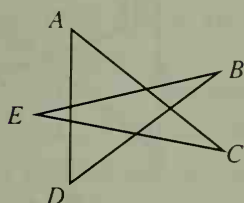
  c. Using inductive reasoning, suggest a formula for the sum of the angle measures at the tips of an n-pointed star.

  d. Using deductive reasoning, justify your formula.

◆ Calculator Key-In

Complete the right side of the first three equations in each exercise. Then use inductive reasoning to predict what the fourth equation would be if the pattern were continued. Check your prediction with your calculator.

1. $1 \times 1 = \underline{\ ?\ }$
  $11 \times 11 = \underline{\ ?\ }$
  $111 \times 111 = \underline{\ ?\ }$
  $\underline{\ ?\ } \times \underline{\ ?\ } = \underline{\ ?\ }$

2. $6 \times 7 = \underline{\ ?\ }$
  $66 \times 67 = \underline{\ ?\ }$
  $666 \times 667 = \underline{\ ?\ }$
  $\underline{\ ?\ } \times \underline{\ ?\ } = \underline{\ ?\ }$

3. $8 \times 8 = \underline{\ ?\ }$
  $98 \times 98 = \underline{\ ?\ }$
  $998 \times 998 = \underline{\ ?\ }$
  $\underline{\ ?\ } \times \underline{\ ?\ } = \underline{\ ?\ }$

4. $7 \times 9 = \underline{\ ?\ }$
  $77 \times 99 = \underline{\ ?\ }$
  $777 \times 999 = \underline{\ ?\ }$
  $\underline{\ ?\ } \times \underline{\ ?\ } = \underline{\ ?\ }$