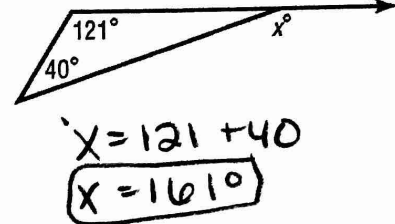
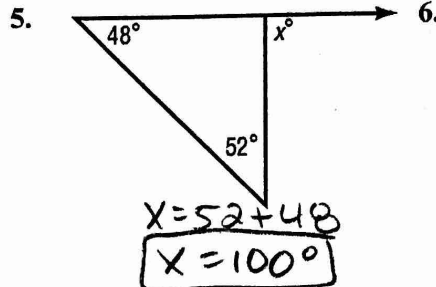
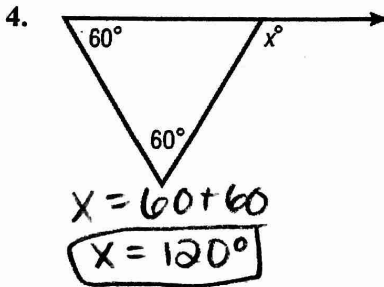
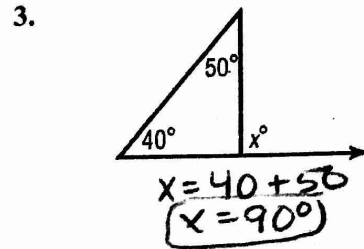
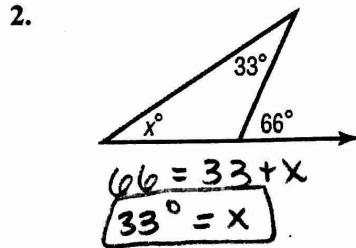
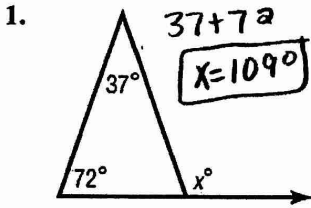


## Angles of Triangles and Polygons

Find the value of  $x$  in each triangle.



Find the sum of the interior angle measures of each polygon.

7. 13-gon  $(13-2) \cdot 180$   
 $1980^\circ$

8. 18-gon  $(18-2) \cdot 180$   
 $2880^\circ$

9. 32-gon  $(32-2) \cdot 180$   
 $5400^\circ$

10. 35-gon  $(35-2) \cdot 180$   
 $5940^\circ$

Find the measure of one interior angle in each regular polygon. Round to the nearest tenth if necessary.

11. heptagon (7-sided)  $\frac{(7-2) \cdot 180}{7}$   
 $128.6^\circ$

12. 26-gon  $\frac{(26-2) \cdot 180}{26}$   
 $166.2^\circ$

13. decagon (10-sided)  $\frac{(10-2) \cdot 180}{10} = 144^\circ$

14. 23-gon  $\frac{(23-2) \cdot 180}{23}$   
 $164.3^\circ$



### Internal angle rule for polygons

- Starting at the top, shade in the one correct path to the bottom to solve this question:  
What is the name given to a maze-like structure from Greek mythology that has only one correct path?

Rules to solve the puzzle.

- You can:
- only step on polygons containing their correct internal angle sum.
  - only move to polygons that share a **side** with the one you are currently on.
  - start from any hexagon at the top and finish on any pentagon at the bottom.

Put the letter on each step taken into the matching numbered boxes at the bottom to reveal the answer.

Start anywhere along here Start w/B

Finish anywhere along here

L
A
B
Y
R
I
N
T
H

1
2
3
4
5
6
7
8
9