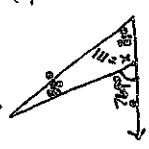


# Exterior and Interior Angles of a Triangle

\*Hint: All interior angles in a triangle add to equal 180°.

Ex: 

$$38 + 31 + x = 180$$

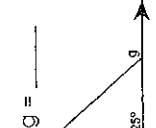
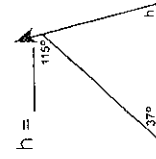
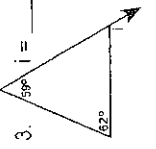
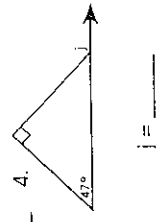
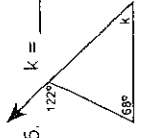
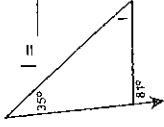
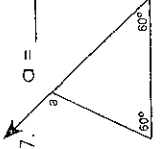
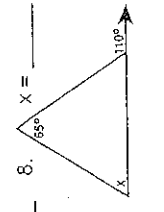
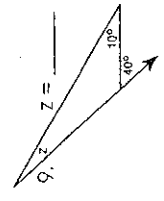
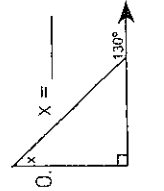
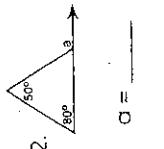
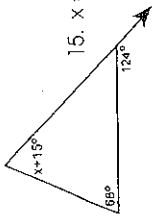
$$\begin{array}{r} 180 \\ -111 \\ \hline 69 \end{array}$$

$$69 + x = 180$$

$$\begin{array}{r} 180 \\ -69 \\ \hline 111 \end{array}$$

$x = 111^\circ$

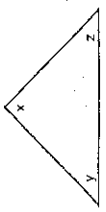
Find the measures of the angles indicated.

-   $g =$  \_\_\_\_\_
-   $h =$  \_\_\_\_\_
-   $i =$  \_\_\_\_\_
-   $j =$  \_\_\_\_\_
-   $k =$  \_\_\_\_\_
-   $l =$  \_\_\_\_\_
-   $a =$  \_\_\_\_\_
-   $x =$  \_\_\_\_\_
-   $z =$  \_\_\_\_\_
-   $x =$  \_\_\_\_\_
-   $a =$  \_\_\_\_\_
-   $x =$  \_\_\_\_\_

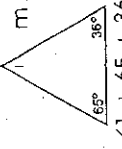
- If  $m\angle 1 = 88$  and  $m\angle 2 = 27$ ,  $m\angle 3 =$  \_\_\_\_\_
- If  $m\angle 1 = 93$  and  $m\angle 2 = 121$ ,  $m\angle 3 =$  \_\_\_\_\_

# Interior Angles of a Triangle

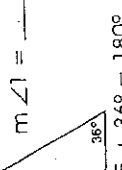
For any  $\Delta$   $x + y + z = 180^\circ$



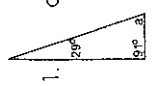
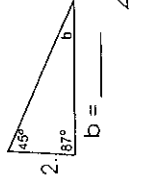
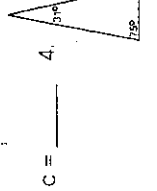
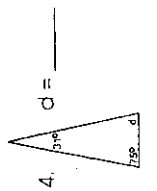
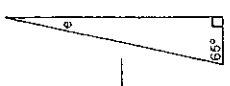
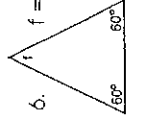
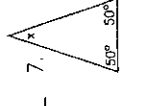
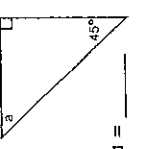
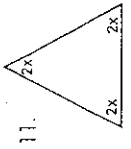
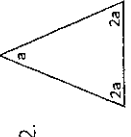
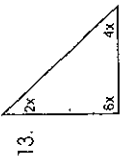
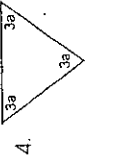
$m\angle 1 + 65 + 36 = 180^\circ$



$m\angle 1 + 101 = 180^\circ$



$m\angle 1 = 79^\circ$

-   $a =$  \_\_\_\_\_
-   $b =$  \_\_\_\_\_
-   $c =$  \_\_\_\_\_
-   $d =$  \_\_\_\_\_
-   $e =$  \_\_\_\_\_
-   $f =$  \_\_\_\_\_
-   $x =$  \_\_\_\_\_
-   $a =$  \_\_\_\_\_
- If  $m\angle 1 = 74$  and  $m\angle 3 = 39$ ,  $m\angle 2 =$  \_\_\_\_\_
- If  $m\angle 1 = 65$  and  $m\angle 2 = 86$ ,  $m\angle 3 =$  \_\_\_\_\_
-   $x =$  \_\_\_\_\_
-   $a =$  \_\_\_\_\_
-   $x =$  \_\_\_\_\_
-   $a =$  \_\_\_\_\_