3.2 Angles of Triangles p. 110

* The angles inside of a polygon are called interior angles
* The sum of the interior angles of a triangle is 180°.

Find the value of x.

$x + 28 + x + 90 = 180$
$2x + 118 = 180$
$2x = 62$
$\boxed{x = 31}$
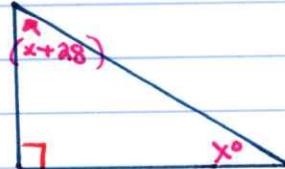
* When the sides of a polygon are extended, other angles are formed. The outside angles that are adjacent to the interior angles are called exterior angles.
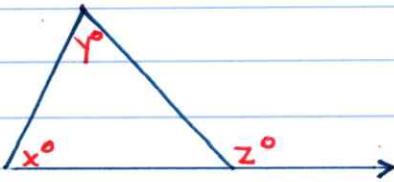

$\boxed{x + y = z}$

* The measure of an exterior angle of a triangle is equal to the sum of the measures of the two nonadjacent interior angles.

Find the measure of the exterior angle.
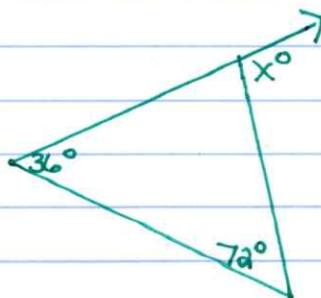
$x = 36 + 72$
$\boxed{x = 108°}$
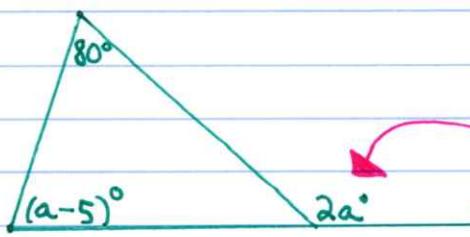
$2a = 80 + a - 5$
$2a = 75 + a$
$\boxed{a = 75}$

The exterior angle is 150°