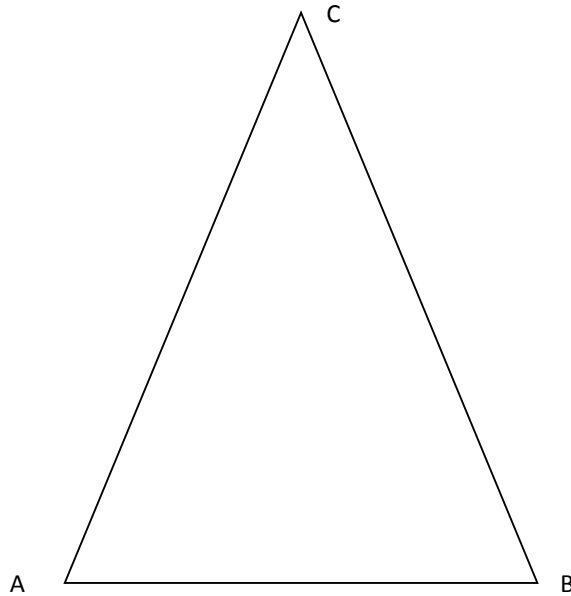If a base angle of an isosceles triangle measures 50, what is the number of degrees in the measure of the vertex angle?

Solution:

We know that $\angle A = 50°$. Because ΔABC is the isosceles triangle then

$$\angle A = \angle B = 50°.$$

The sum of the interior angles of a triangle is $180°$. So

$$\angle A + \angle B + \angle C = 180°,$$

$$50° + 50° + \angle C = 180°,$$

$$\angle C = 80°.$$

Answer:

$$80 \ (degrees)$$