

Example 1

The ratio of the angles of a triangle is 1:2:3. Find the measures of the angles.

Step 1 – How many total degrees?

The angles of a triangle add up to **180** degrees.

Step 2 – Use  $x$

The ratio of the angles is **1:2:3**, so we'll use  **$1x$** ,  **$2x$** , and  **$3x$**  for our angles.

Step 3 – Make equation and solve for  $x$

$$1x + 2x + 3x = 180$$

$$6x = 180$$

$$x = 30$$

Step 4 – Plug in (substitute)  $x$  to find the angles.

$$1x = 1(30) = 30$$

$$2x = 2(30) = 60$$

$$3x = 3(30) = 90$$

**30°, 60°, 90°**