

February 4th

How many isosceles triangles can you find in which the difference between two unequal angles is 36° ?

One angle is x and the other is $x-36$

Triangle 1:

$x, x, x-36$

$$\text{Hence } 3x - 36 = 180 \quad \Rightarrow \quad x = 72$$

Therefore angles are **$72^\circ, 72^\circ$ and 36°**

Triangle 2:

$x-36, x-36, x$

$$\text{Hence } 3x - 72 = 180 \quad \Rightarrow \quad x = 84$$

Therefore angles are **$48^\circ, 48^\circ$ and 84°**