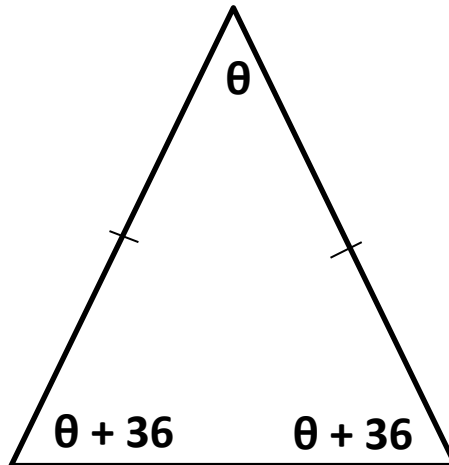


August 18<sup>th</sup>

How many isosceles triangles can be found in which the difference between two unequal angles is  $36^\circ$ ?

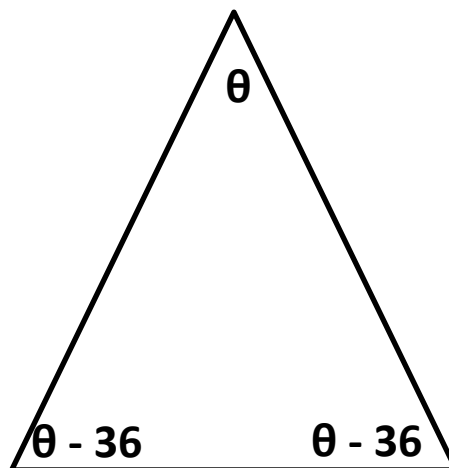


In this case

$$3\theta + 72 = 180$$

$$\text{hence } \theta = 36^\circ$$

The three angles are therefore  **$72^\circ, 72^\circ$  and  $36^\circ$**



In this case

$$3\theta - 72 = 180$$

$$\text{hence } \theta = 84^\circ$$

The three angles are therefore  **$48^\circ, 48^\circ$  and  $84^\circ$**

