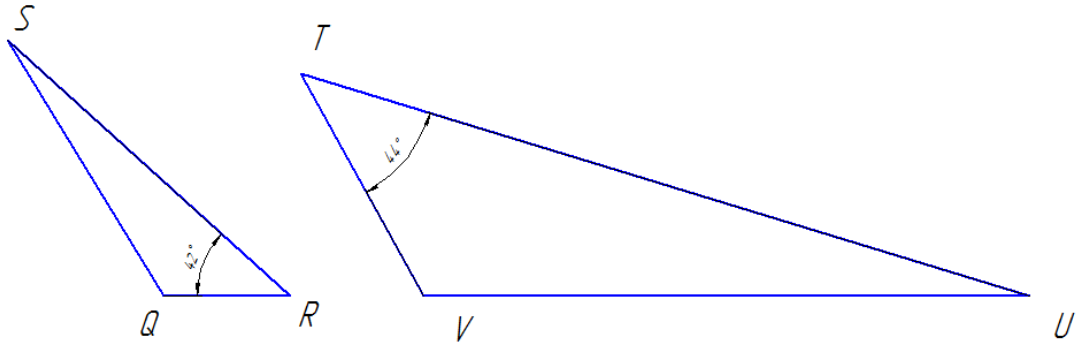


**Task:**

In triangle  $QRS$ ,  $QR = 5$ ,  $RS = 15$ ,  $\angle QRS = 42^\circ$ . In triangle  $UVT$ ,  $VT = 10$ ,  $TU = 30$ ,  $\angle VTU = 44^\circ$ . State whether the triangles are similar, and if so, write similarity statement.

**Solution:**



Two triangles  $\triangle QRS$  and  $\triangle VTU$  are said to be similar if either of the following equivalent conditions holds:

1. They have two identical angles, which implies that their angles are all identical.
2. Corresponding sides have lengths in the same ratio
3. Two sides have lengths in the same ratio, and the angles included between these sides have the same measure.

$$\frac{QR}{VT} = \frac{RS}{TU} = \frac{1}{2}, \angle QRS \neq \angle VTU$$

**Answer:**

The triangles are not similar