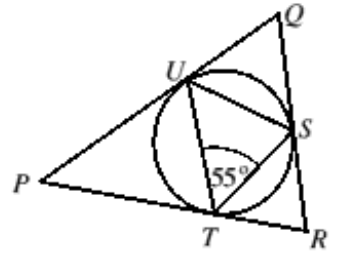




19. The largest circle which it is possible to draw inside triangle  $PQR$  touches the triangle at  $S$ ,  $T$  and  $U$ , as shown in the diagram. The size of  $\angle STU = 55^\circ$ . What is the size of  $\angle PQR$ ?

A  $55^\circ$       B  $60^\circ$       C  $65^\circ$       D  $70^\circ$       E  $75^\circ$



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19. **D** By the Alternate Segment Theorem  $\angle QUS = 55^\circ$ . Tangents to a circle from an exterior point are equal, so  $QU = QS$  and hence  $\angle QSU = \angle QUS = 55^\circ$ . So  $\angle PQR = 180^\circ - 2 \times 55^\circ = 70^\circ$ .