Proving Triangle Theorems - Guided Lesson
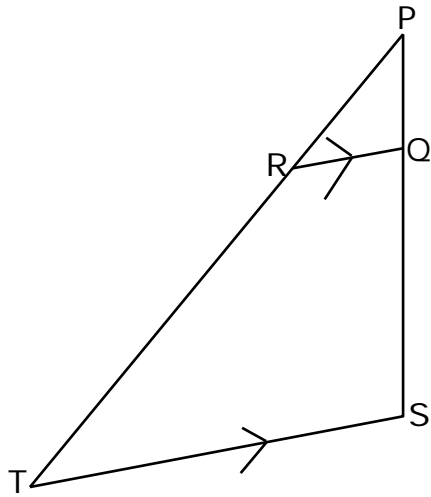
Complete the following problems:

1) Find the length of PR by using the side splitter theorem.

P

R   Q

S

T

PQ = 6   PR=

RT= 12   QS=14

2) Proof: Triangle Sum Theorem

Given:

∠A = 2x˚

∠B =3x˚

∠C = (4/4)x˚

Prove:

∠B = 90˚

A

B

C
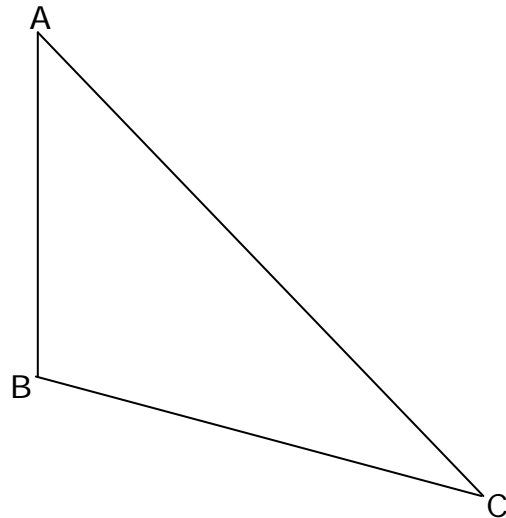
3) Proof: Triangle Exterior Angle Theorem

Given:

∠ P = 30˚

∠QRS =140˚

Prove:

∠Q = 110˚