## Loci and Construction Exam Practice

Q1. Using a ruler and pair of compasses, construct a triangle with side lengths $4.5 \mathrm{~cm}, 7.3 \mathrm{~cm}$ and 6.5 cm .
You must show all your construction lines.

Q2. Use ruler and compasses to construct a perpendicular line from point Q to the line PR. You must show all your construction lines.

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## Q

Q3. Ted is planning his garden, which has the following features:

- the boundary fence forms an equilateral triangle ABC of side length 12 m .
- at each vertex, a tree is planted, which casts a circular shadow of diameter 6 m .
- a rose-bush which is to be nearer to vertex A than vertex C, and not in the shadow of any tree.

Using ruler and compasses, and a scale of $1 \mathrm{~cm}=2 \mathrm{~m}$, construct a possible scale model of Ted's garden below. Shade where Ted's rose bush could be planted.

Q4. Use ruler and compasses to construct the bisector of angle STU. You must show all your construction lines.


