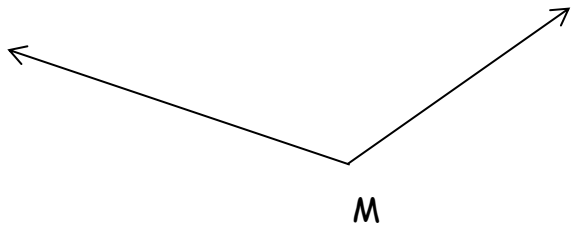
G5-2 Name _____

Constructing angles and bisectors

Check for understanding:

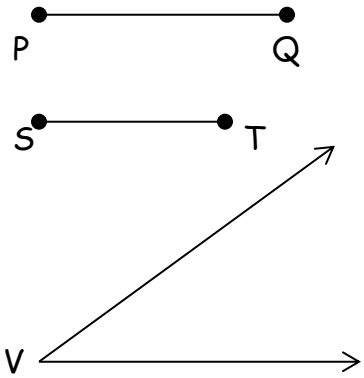
1. Construct $\angle M'$ by copying $\angle M$.



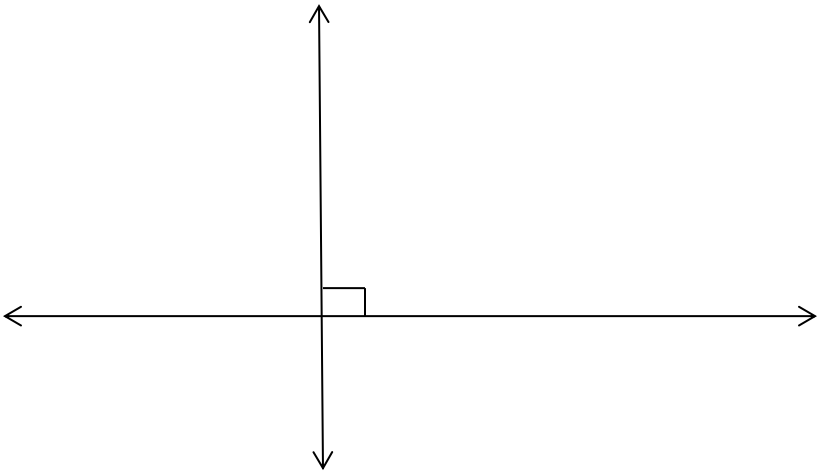
Then bisect $\angle M'$.

Practice: C-level

2. Construct a triangle with sides congruent to $\overline{PQ}$ and $\overline{ST}$, with an angle congruent to $\angle V$ in between.



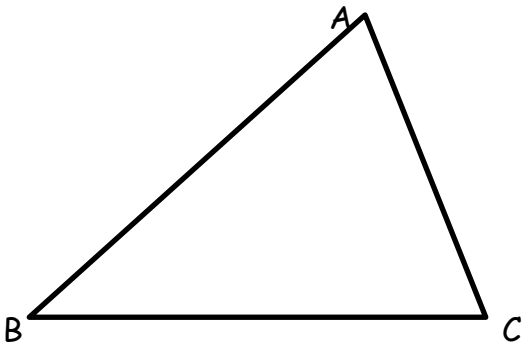
3. Using the perpendicular lines below. Construct a 45° angle.

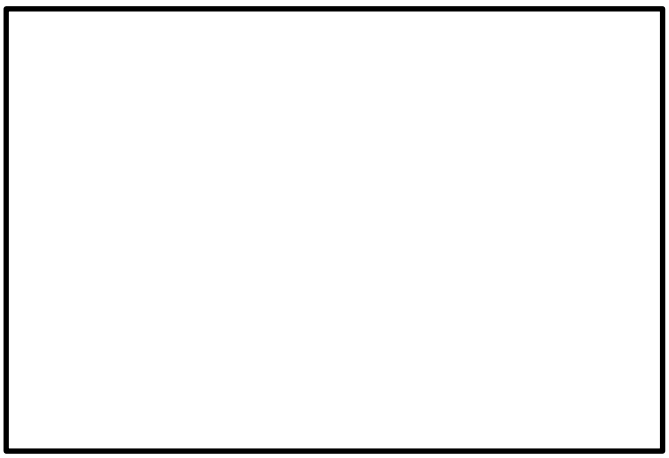


Practice B level:

4. Construct equilateral triangle ΔMNP. Then construct ΔQNP with 30^o, 60^o and 90^0 angles.

5. Construct ΔDEF congruent to ΔABC:





How do you know that the triangles are congruent? Describe the steps you used to do the construction that guarantee the two are congruent.

6. You cannot use a ruler to draw a line segment of exact length $\sqrt{2}$ units ≈ 1.414213562… However, a right triangle can help. Use what you know about special right triangles to construct a segment of length $\sqrt{2}$ units below. Given a unit is as shown.