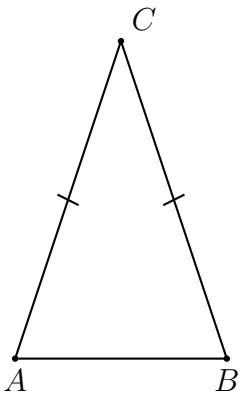
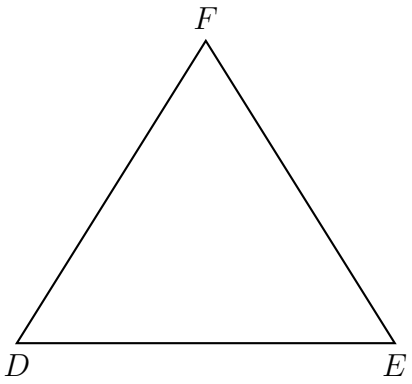
2.5 Classwork: Isosceles base theorem

Diagrams are not necessarily drawn to scale unless otherwise stated.

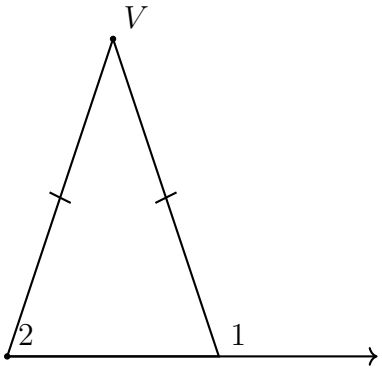
1. Given $\triangle ABC$. $\overline{AC} \cong \overline{BC}$, $\text{m}\angle A = 55$. Find $\text{m}\angle C$.



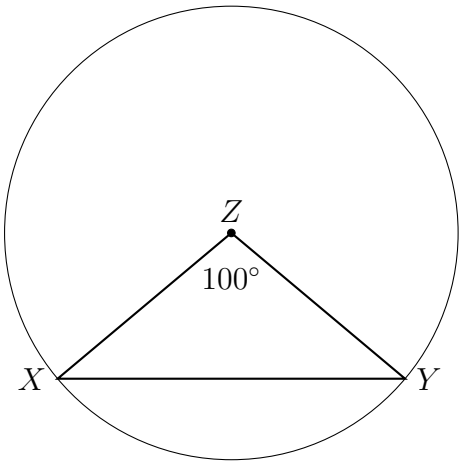
2. Given $\triangle DEF$. $\overline{DF} \cong \overline{EF}$, $\text{m}\angle F = 72$. Find $\text{m}\angle D$.



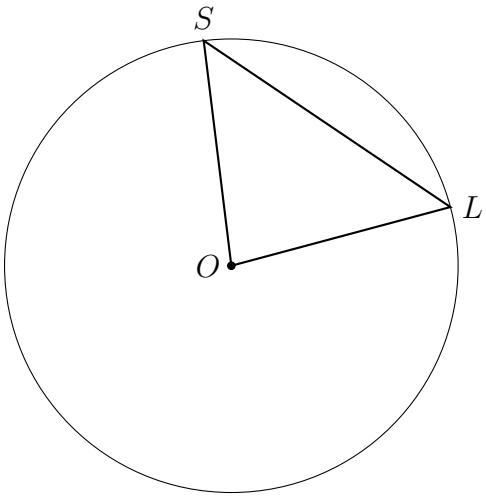
3. Given the triangle shown with congruent sides marked. $\text{m}\angle 1 = 110$. Find $\text{m}\angle 2$
   Spicy: Find the measure of the vertex angle.



4. Given circle with center Z and isosceles $\triangle XYZ$. $\text{m}\angle Z = 100$. Find $\text{m}\angle Y$.



5. Given circle O with inscribed $\triangle SLO$. $\text{m}\angle S = x + 17$. Find $\text{m}\angle L = 2x - 18$. Find x. For full credit, check your answer.



6. Writing to learn: Why do we write down the theorems that justify each step to solve a problem?