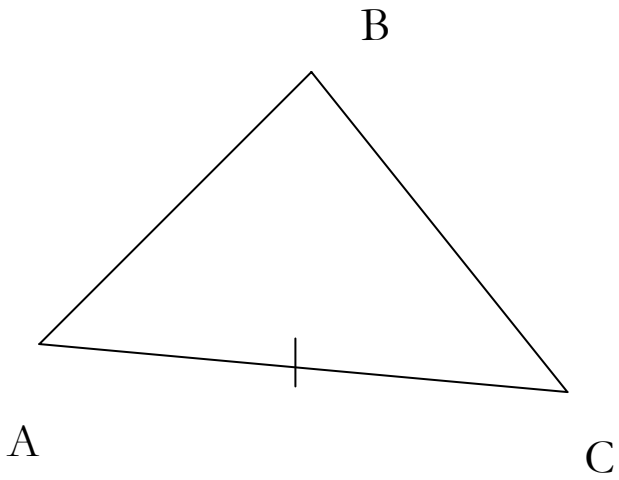
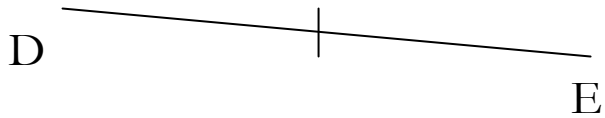
Class #21

More on congruence

Question

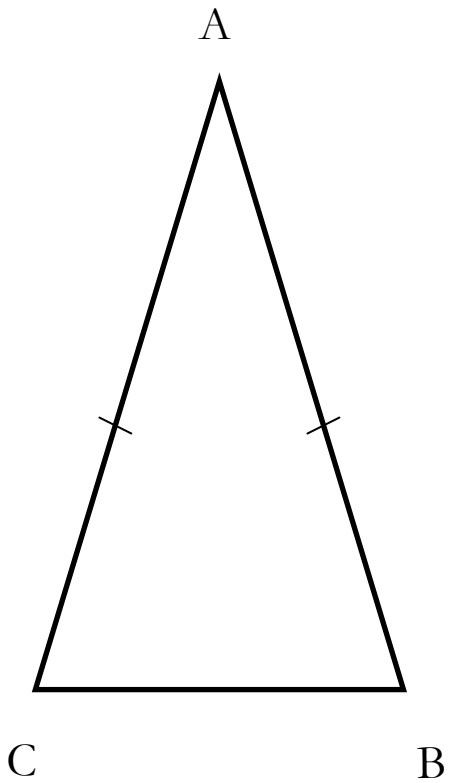




Can you find a triangle congruent to ΔABC whose side is DE?

Can you now prove

- If in ΔABC we have AB≅AC then ◁B ≅ ◁C



Since AB≅AC, AC≅AB, ◁A ≅ ◁A
we have ΔABC ≅ ΔACB, by ***SAS***.
By definition of congruent triangles we have that corresponding parts, are congruent, so ◁B ≅ ◁C

Model?

- In the Cartesian plane we can define length of segments:
  - A=(a_1, a_2) and B=(b_1, b_2), then

$$\sqrt{\left((a_1 - b_1)^2 + (a_2 - b_2)^2\right)}$$

- Two segments are congruent iff they have equal length.
- Two angles are congruent iff they have equal measures.

- $c^2 = a^2 + b^2 - 2ab \cdot \cos C$, where