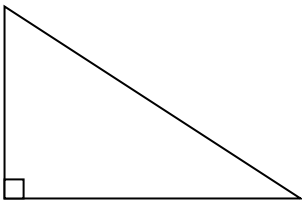


# Solving Triangles – Choosing the Correct Tool

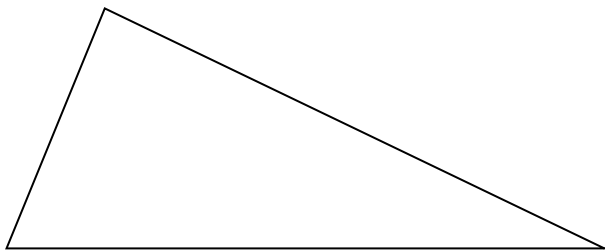
---

## Formula Sheet

### Right Triangles



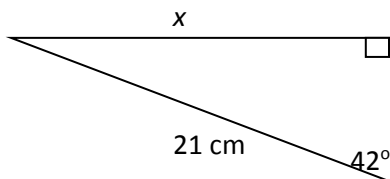
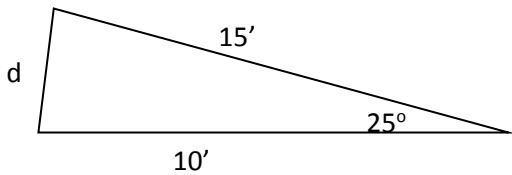
### Any Triangle

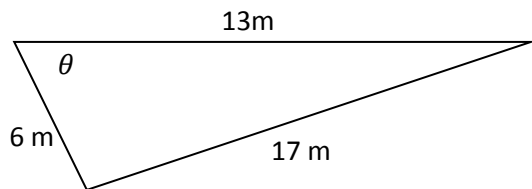
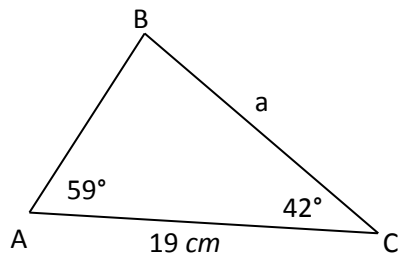


## How do I decide what to use??

1. Do you have a right triangle?
  - If so use SOH CAH TOA to find side/angle or use Pythagorean theorem to find a side if you already have two sides.
2. Are you given side-angle-side (SAS - in that order) and looking for a third side?
  - Use Cosine Law.
3. Are you given three sides (SSS) and looking for an angle?
  - Use Cosine Law – rearranged to find an angle.
4. None of the above, but still have three pieces of information about the triangle (ASA, ASS)
  - Use Sine Law to solve for a missing side or missing angle.
5. If you do not have at least three measurements, or all of your measurements are angles (AAA) you are not able to proceed.

**Examples** – Find the unknown variable in each diagram.





Solve the acute triangle below.

