

Mathematics

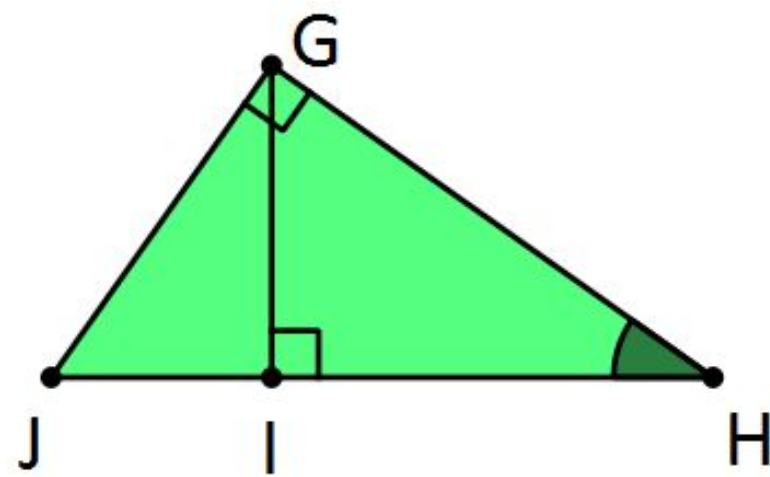
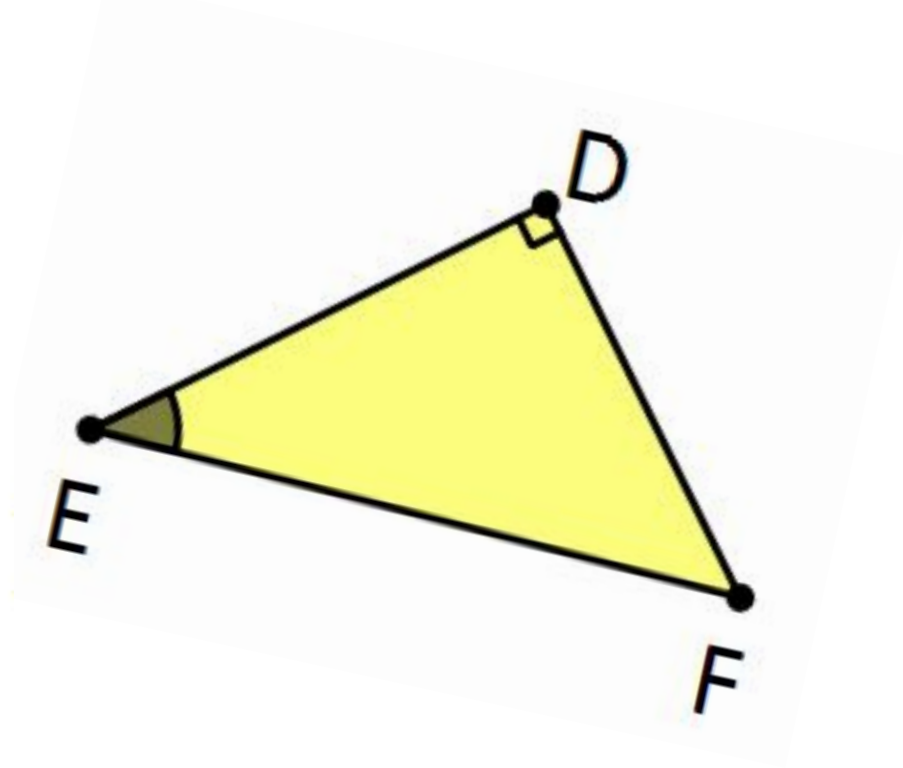
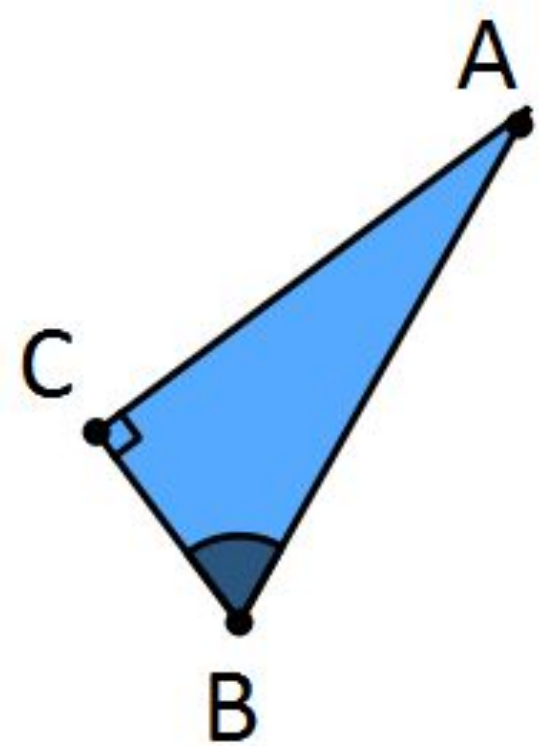
The sine and cosine for 30 and 60 degrees.
Downloadable resource
Lesson 9 of 12.

Dr Rim Saada

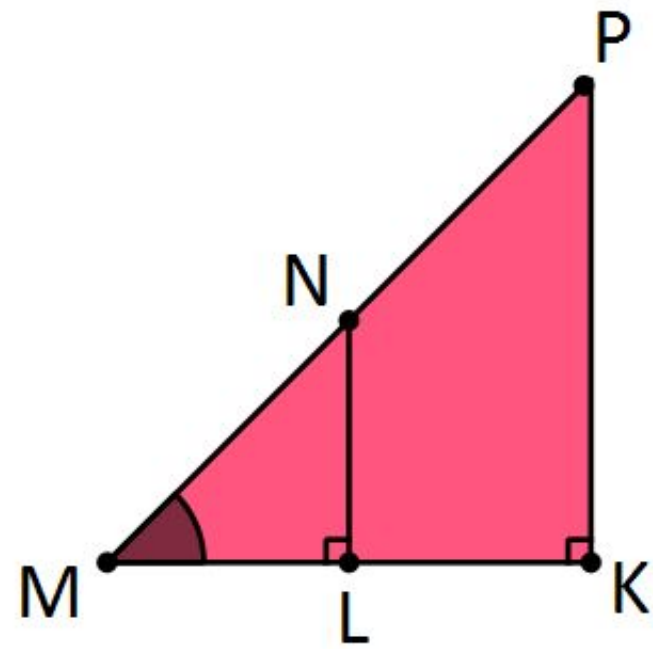


Try this

For each triangle, which side is opposite the marked angle, and which side is the hypotenuse?



- i) For triangle IGH.
- ii) For triangle GJH.



- i) For triangle MNL.
- ii) For triangle MKP.

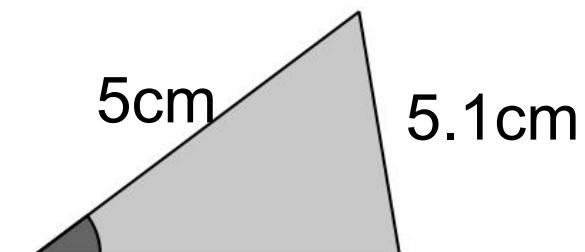
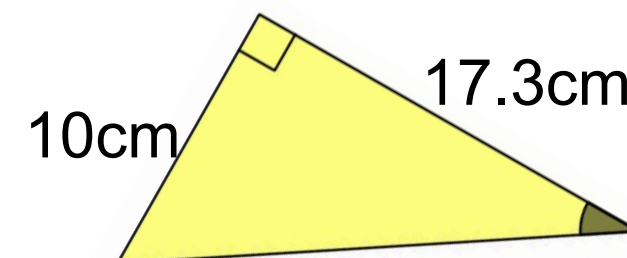
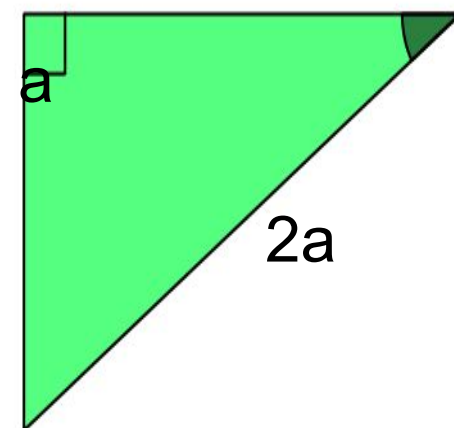
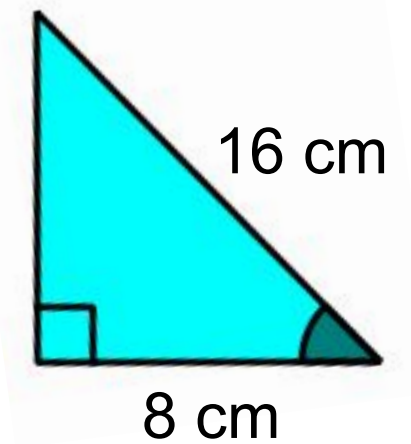
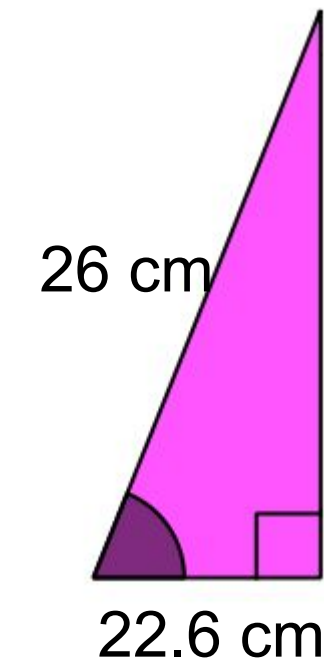
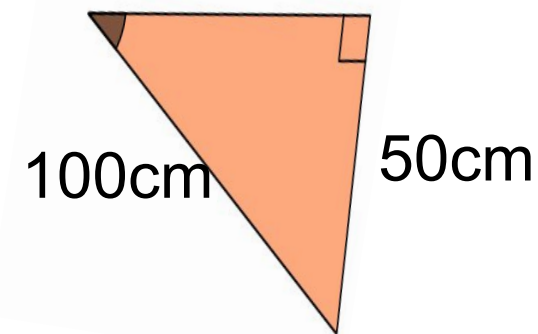
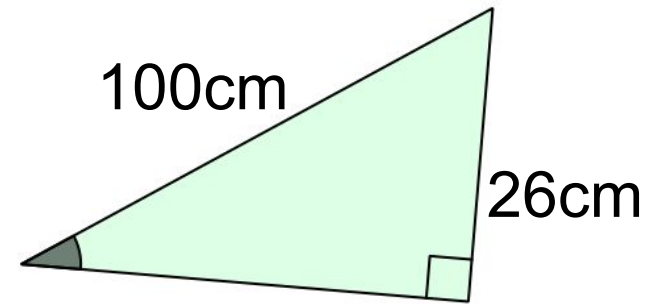


Independent task

Hint: In a 30° triangle, $\frac{\text{opposite}}{\text{hypotenuse}} = 0.5$, $\frac{\text{adjacent}}{\text{hypotenuse}} = 0.87$

Which of these triangles have 30° angle marked?

(Triangles are not drawn to scale).



Explore

Find all the right-angled triangles which have a side length of 5 cm and an angle of 30° .

Put them in order from the smallest area to the largest area.

Find a right-angled triangle with an angle of 30° in which the perimeter has the same value as the area.

