UNIT 5 – LESSON 1 Identifying Triangles and Trigonometric Ratios

Identifying Triangles

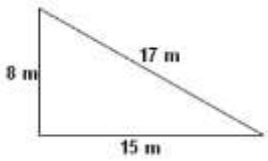
$if: c^2 = a^2 + b^2, then:$ RIGHT

$if: c^2 > a^2 + b^2, then:$ OBTUSE

$if: c^2 < a^2 + b^2, then:$ ACUTE

Identify the triangles

Ex 1)



17^2 ?? $8^2 + 15^2$

289 ?? 64 + 225

289 = 289 RIGHT TRIANGLE

Identify the triangles

Ex 2) 20, 21, 27

We should know that the HYPOTENUSE is the longest side of a triangle

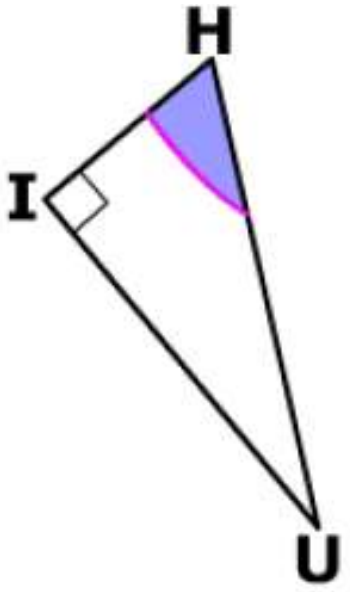
27^2 ?? $20^2 + 21^2$

729 ?? 400 + 441

729 < 841 ACUTE TRIANGLE

Identifying Opposite, Adjacent and Hypotenuse

Identify the sides that are opposite and adjacent to $\angle IHU$.

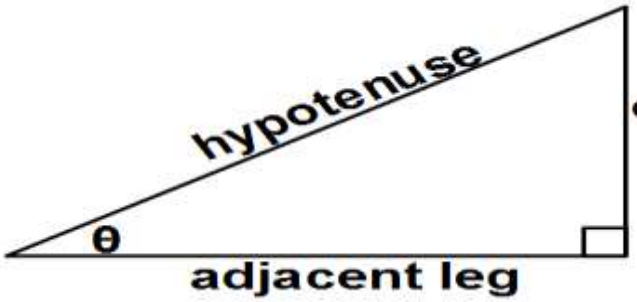


Opposite Side: IU

Adjacent Side: IH

Trig. Ratio – the ratio of the measures of two sides of a right triangle.

Memory Trick for Trig. Ratios = = = = = = SOHCAHTOA



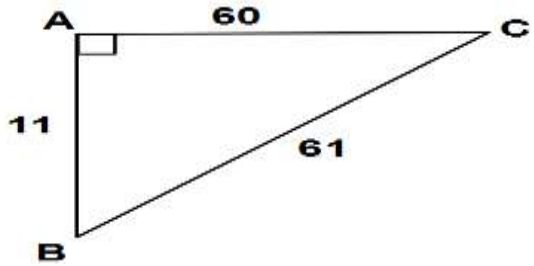
Adjacent = adjacent to the angle

Opposite = opposite the angle
Hypotenuse = the longest side

Trigonometric Ratios

name	ratio	notation
sine	opp/hyp	$\sin(\theta)$
cosine	adj/hyp	$\cos(\theta)$
tangent	opp/adj	$\tan(\theta)$

Using the triangles find the requested values:



1) SinC = 11/61

2) CosC = 60/61

3) TanC= 11/60