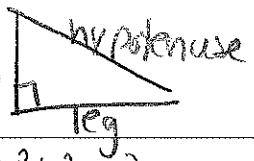
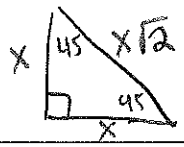
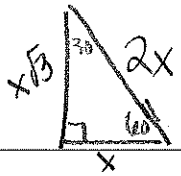
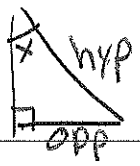
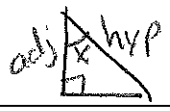
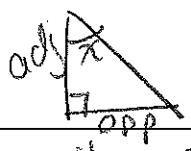
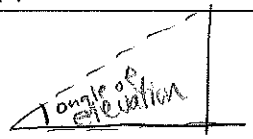
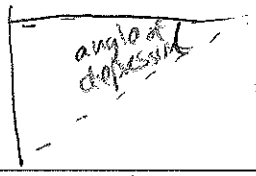
Geometry Unit 7 Vocabulary

Word	Definition	Diagram/other information
Pythagorean theorem	$a^2+b^2=c^2$ for right Δ's only. a = leg, b = leg, c = hypotenuse	
Converse of the Pythagorean theorem	If $a^2+b^2=c^2$ then the Δ is a right Δ.	$a^2+b^2=c^2$ → right $a^2+b^2>c^2$ → obtuse $a^2+b^2<c^2$ → acute
45-45-90 triangle		leg = leg hyp = x√2
30-60-90 triangle		Short leg · 2 = hyp Short leg · √3 = long leg
sine	$\sin x = \frac{\text{opposite}}{\text{hypotenuse}}$	
Cosine	$\cos x = \frac{\text{adjacent}}{\text{hypotenuse}}$	
tangent	$\tan x = \frac{\text{opposite}}{\text{adjacent}}$	
Inverse trig ratio	Used to isolate x, when x is the ∠. The inverse or opposite of sin, cos, or tan	$\sin^{-1}x$ $\cos^{-1}x$ $\tan^{-1}x$
Angle of elevation	angle formed by horizontal + line of site looking up	
Angle of depression	angle formed by horizontal + line of site looking down	

angle of elevation = angle of depression