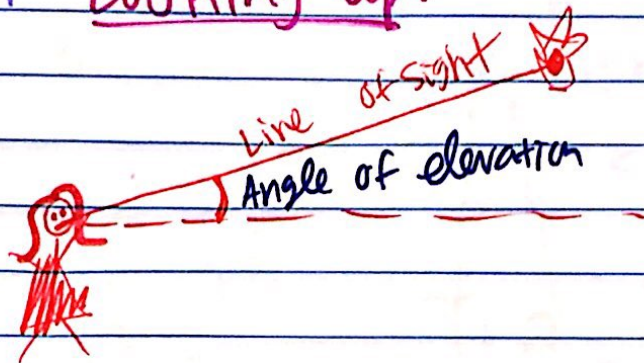
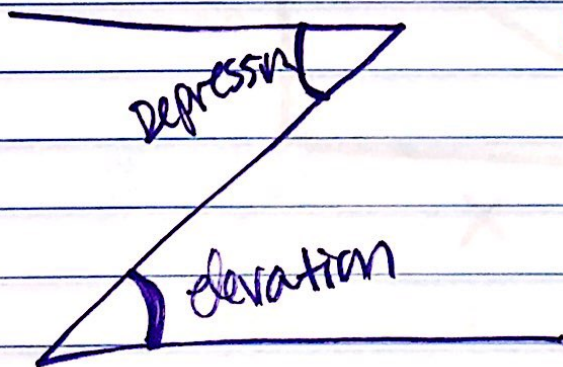
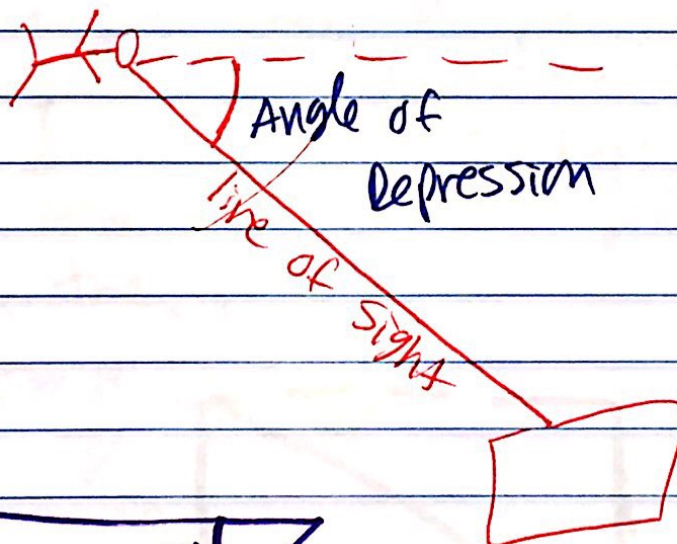


Angles of Elevation/Depression

Angle of elevation: angle formed by a Horizontal Line and the line of sight Looking up.

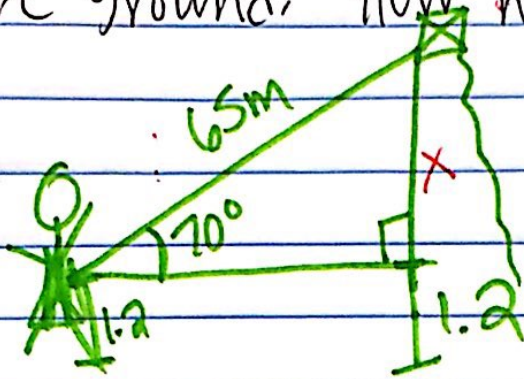


Angle of depression: angle formed by a Horizontal Line and the line of sight Looking down.



Angles are equal b/c alternate interior

ex1 Isabelle's kite is flying above a field with a 65m string. Angle of elev. is 70° and she is holding the kite 1.2m off the ground. How high is the kite?

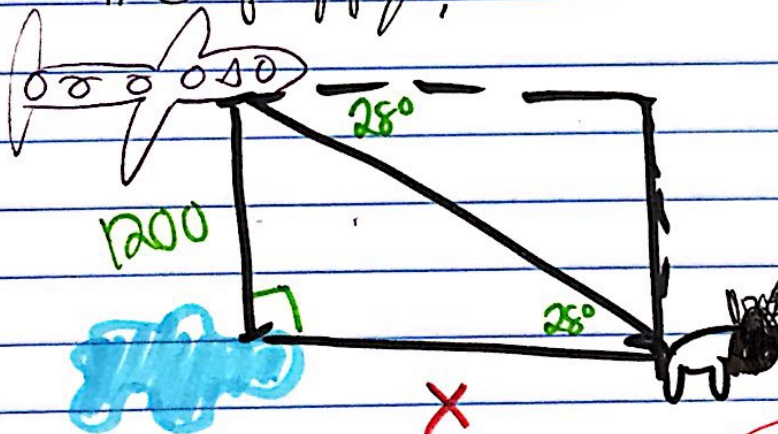


$$\sin(70) = \frac{X}{65}$$

$$X = 61.1$$

Answer: 62.3m

ex2 Joshua is flying a plane at an altitude of 1200m. He is flying over a pond, when he sees a puppy. The angle of depression to the puppy is 28° . How far is the pond from the puppy?



$$\tan(28) = \frac{1200}{X}$$

$$X = 2256.9m$$