**HELP ME, I’VE BEEN KIDNAPPED!**

**![C:\Users\sbishop\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\6FB7DZJS\MC900423173[1].wmf]()**

Miss. Bishop has been kidnapped from East Leyden High School, OH NO! Since she saw *Taken 2* she knows what she has to do to be saved! Once the teacher-nappers put her in the car and started to drive she counts the seconds of how long she is moving for. She counts for 900 seconds. Luckily, she is able to sneak a peek when her blindfold fell off and notices they are traveling at a speed of 56 miles per hour. (Assume they were traveling straight and at this speed the whole time)

Once she was put in a room she uses her secret radio, yes she has a secret radio, to signal her mom in Arlington Heights. Her mom is frightened and willing to do whatever it will take to get her daughter back! Miss. Bishop thinks back to *Taken 2* and comes up with a great idea! The sun has already set in Arlington Heights and is close to set where she is so she has her mom set a firework off in her backyard and counts the seconds it takes to hear the firework from where she is. She hears the firework 33 seconds after her mom sets it off. Miss. Bishop hears one last thing before she falls asleep…”The mall will be closing in 30 minutes.”

Can you help find Miss. Bishop!?

**Helpful Hints!**

\*A scale to use on the map: 

\*1 km = 1000 m

\*1 km = .621371 mile

\*Speed of sound: 340.29 m/s

\*d = rt

**Answer the following questions to help find Miss. Bishop!**

1. What two geometric shapes are you going to construct in order to find her location?
2. What do you need to calculate in order to construct these shapes?
3. What did Miss. Bishop do to help you construct the first shape?
4. Show you work of your calculations for the first shape here.
5. What did Miss. Bishop do to help you construct the second shape?
6. Show your work of your calculations for the second shape here?
7. Once you have drawn the two shapes, what are you looking for?
8. What city is Miss. Bishop in? Could you take an educated guess on her exact location?