

(A) Detailed In Class Example Showing HOW to Organize a Solution

- a. Believe it or not, Mr. S. is a superhero in his spare time (when he is not busy writing lessons for his beloved “other favorite” class of course). So one night (it was a Thursday I recall), I was standing on top of a building (as is my superhero duty - watching over the city of course), when I happen to notice the evil Dr. MathNoLikius on top of a building, close to the one I was on. So I quickly used my InfraRed Supervision and I quickly determined that the angle of elevation of my line of sight to Dr. MathNoLikius was 12° . I also quickly determined that the angle of depression to the base of the building upon which Dr. MathNoLikius was standing happened to be 34° . Amazingly enough, I also knew that the two buildings were 150 meters apart (Wow, imagine that!!)
- i. So being a superhero, I was able to use my trig knowledge to determine the height of the building that the evil Dr. MathNoLikius was standing upon to be 356.6 m. Was I correct? Correct me if I was wrong (HAHAHAHAHAHA)
- ii. But I also needed to know exactly the direct distance between me and the evil Dr. M. (as of course I would FLY there – or at least jump in a single bound – well, maybe attempt to anyway). Anyway, once again, I used my super trig powers to calculate that distance to be 600 meters. Was I right???

(B) Solution:

Diagram: to visualize the problem and organize the given info

Step 1: What needs to be done??

Step 2: What needs to be done???

Final Answer(s):

(B) In Class Thinking/Problem Solving Session (Using McGraw-Hill, Chap 7.5 questions)

a. Scoring Guide - Thinking/Problem Solving →

Expert Level	Proficiency Level	Developing Level	Emerging Level	Skill Not Mastered
We set it up correctly by ourselves	We tried and were close, but needed some hints/guidance in setting it up	We tried, but were not close, so we needed a fair bit of help in setting it up	We tried something, couldn't really get anywhere, so someone had to give us the set up and explain it to us	We couldn't get it, so we didn't try anything

b. Scoring Guide - Application →

Expert Level	Proficiency Level	Developing Level	Emerging Level	Skill Not Mastered
We were able to correctly work through the entire solution and come up with the right answer	We made one minor error in the execution of the solution, but what we were trying to do was correct.	We made an error in the set up of the problem, but could correctly work through our incorrectly set up solution.	We made an error in the set up and made some errors in the execution of our solution.	Everything we tried to do was incorrect

c. Scoring Guide - Communication →

Expert Level	Proficiency Level	Developing Level	Emerging Level	Skill Not Mastered
Our solution was clear and easy to follow as we clearly and concisely outlined what needed to be done	Our solution was clear and somewhat easy to follow as it wasn't really clearly & logically presented	The reader/marker had to make some inferences about what you did in your solution and why you did it.	The reader/marker couldn't really follow what you were doing and why you were doing it.	You're kidding, right???