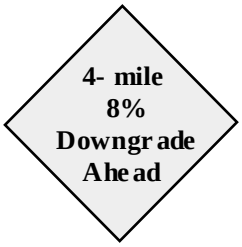
Math 86 Lab 4 Franz Helfenstein **Name**

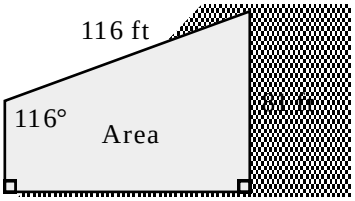
Answers must be clearly **legible**, **simplified** and **boxed** or **circled**. Unless otherwise stated write answer as an **exact** integer or rational or use **two** decimal accuracy. **Units** required.

1) Find the elevation drop in feet. 5,280 ft = 1 mi.



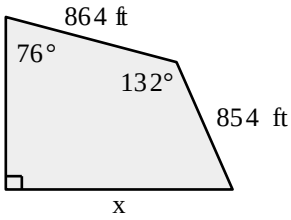
Elevation change =

2) Find the Area.



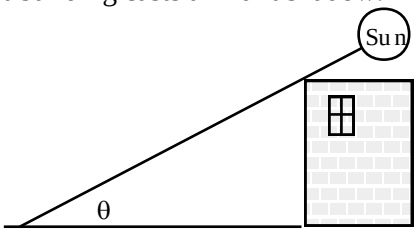
Area =

3) Find x.



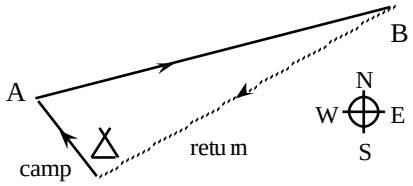
x =

4) A 64 ft building casts a 110 ft shadow.



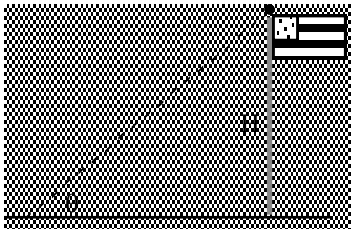
θ =

5) Billy hikes from Camp to pt A for 650 ft bearing N 50° W, then turns and hikes 2,000 ft to pt B bearing N 75° E. How far is it back to camp?



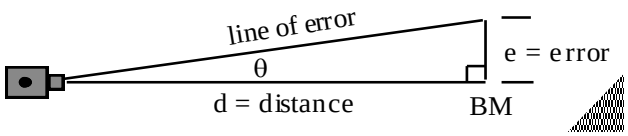
Distance back to camp =

6) Find the height of the flag pole given an angle of 47° measured 54 ft from the base of the pole.



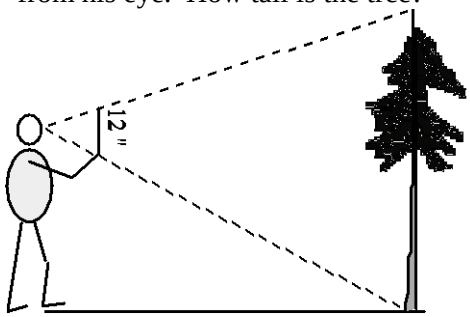
H =

7) A transit shoots a line 420 ft towards a known bench mark with 6 in of error. What angular error is in the transit?



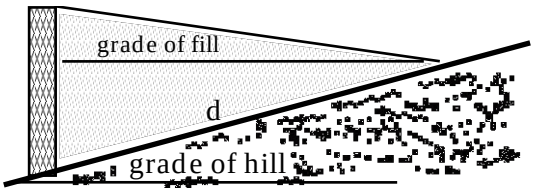
θ =

8) Joe stands 65 ft from a tree and holds a ruler 18" from his eye. How tall is the tree?



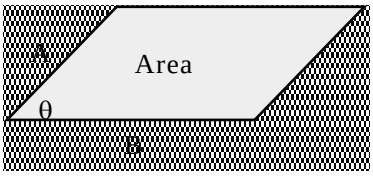
H =

9) A 12 ft retaining wall is erected on a hill with a 20% grade. The fill is to be graded at 12%. Find d, where the fill meets the hill.



d =

10) Find the area of a parallelogram with A= 10 ft, B = 20 ft and θ = 40°



Area =