

QUIZ 3 - MATH 131

Thursday, January 27

YOUR NAME: _____

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Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Find the exact value of the expression $\cos \frac{\pi}{4} \tan \frac{\pi}{6} + 2 \tan \frac{\pi}{3}$. Please, simplify your answer as much as possible.
2. The angle of elevation to the top of the Egyptian pyramid of Cheops is 36.4° , measured from a point 350 feet from the base of the pyramid. The angle of elevation from the base of a face of a pyramid is 51.9° . Find the height of the Cheops pyramid.

3. Given that $\tan \theta = -\frac{3}{2}$ and that $\cos \theta > 0$, find $\sin \theta$ and $\sec \theta$.