APPLIED MATHEMATICS

Last Name: _____

First Name: _____

Student ID: _____

Quiz 2

Question 1. *(4 marks)* The weight of gold is 1206 pounds per cubic foot (1206 lb / ft^3).

(a) Convert this weight to kg per cubic cm.

(b) Convert this weight to pounds per cubic inch.

Question 2. *(4 marks)* Solve the right triangle with sides $a = 32.5$cm and $b = 24.2$cm (c is the hypotenuse).

Question 3. *(4 marks)* Evaluate the following without a calculator:

(a) $\tan 60°$

(b) $\csc(\pi/4)$

Question 4. *(6 marks)* Find θ given (use the correct number of significant figures):

(a) $\sec\theta = -1.662$ and $0° \le \theta < 360°$.

(b) $\tan\theta = -0.29$, $\sin\theta > 0$ and $0 \le \theta < 2\pi$.