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**MAC 1114 Section 074H**  
**Quiz 7**

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Please show all of your work in a NEAT and ORGANIZED fashion.

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1. (3 points) The sun is  $42^\circ$  above the horizon. A man has a shadow of length 7 feet. How tall is he? You must sketch a diagram or picture to receive full credit. (Keep your answer exact.)

2. (3 points) Factor the expression.

$$-\cos^2 x + 6 \sin x - 26$$

3. (4 points) Perform the addition and use identities to rewrite so that the only trigonometric function used is **cotangent**.

$$\frac{2}{\sec x + 1} + \frac{-2}{\sec x - 1}$$