

# Quiz 3A - Math 130

Name: \_\_\_\_\_

1. (2 points) Find the exact value of all solutions to  $\frac{1}{3} - \tan^2 \alpha = 0$

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2. (2 points) Find the exact value of all solutions to  $\cos 2x - \sin x = 1$  on  $[0, 2\pi)$ .

3. (2 points) If  $\cot \theta = \frac{-12}{5}$  and  $\cos \theta < 0$ , find the exact value of  $\sin\left(\theta + \frac{\pi}{4}\right)$

4. (4 points) Give the exact value of:

(a)  $\cot(\sin^{-1} x)$

(b)  $\tan^{-1}(-1)$

(c)  $\sin^{-1}\left(\sin \frac{7\pi}{6}\right)$

(d)  $\tan(\sin^{-1}(-1))$