

Name: _____

Quiz 6

Math 112

You have 20 minutes to complete this quiz and upload your work to Canvas. Write your answers on a separate sheet of paper and scan them with a scanning app. When you're finished, first check your work if there is time remaining, then turn it in. You may use a scientific calculator, but not a graphing one, and you may not consult other people or the internet. **Show all your work.**

1. (8 points) Find the exact values (in radians) of all x such that $2\cos(3x - 1) = 1$. You must explain your reasoning to receive credit.
2. (4 points) Find the exact values (in radians) of all x such that $2\cos(3x - 1) = 1$ and $-3 \leq x \leq 3$. Again, you must explain your reasoning to receive credit.
3. (8 points) Find a sinusoidal function $f(\theta)$ with amplitude 2, midline -1 , and period 2, so that the graph of $f(\theta)$ contains the point $(1, 1)$. As before, you must explain your reasoning to receive credit.