

# MAT 123-SAMPLE EXAM #1-Fall 2018

NAME: \_\_\_\_\_

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

When do you have recitation? \_\_\_\_\_

\*Each numbered question is worth 20 points.

1. Find the exact value of each.

a.)  $\cot \frac{4\pi}{3}$

b)  $\cos (4\pi)$

c)  $\sin^{-1}(-1) + \cos(0)$

d)  $\tan^{-1}(1) - \tan(0)$

e)  $\csc(\text{Arctan}(-2))$

2. Graph one cycle of  $y = -2 \sin(0.5\pi x - \pi) + 1$  on a scaled set of axes.

3. Find all values of  $x$  in rectangular form:  $x^3 = -\frac{1}{\sqrt{2}} - \frac{i}{\sqrt{2}}$

4. Find all positive values of  $x \leq 3$  if  $\sin(2x) = 0$

5. Find all values of  $x$  :  $\cos(2x) = 1$