

Math 121 – Exam 2A – Fall 2013

Show your work. No work will result in no points.

No calculators or cell phones.

- 1) Find the following: (15 pts)
 - a) $\cos(5\pi/6)$
 - b) $\tan(-7\pi/6)$
 - c) $\csc(-3\pi/4)$

- 2) Given that $\sin(\theta) = 3/5$ and $\sec(\theta) < 0$, find $\tan(\theta)$. (15 pts)

- 3) You invest \$3000 at 5% and it's compounded every 3 months. (15 pts)
 - a) How much is your investment worth after 15 years?
 - b) How long will it take for your investment to quadruple?

- 4) Let $f(x) = 5\sin(4x - \pi)$. (20 pts)
 - a) Find the amplitude, period and phase shift of $f(x)$.
 - b) Sketch a graph of $f(x)$.

- 5) Let $2\log_3(x + 3) - \log_3(9) = 2$. Solve for x . (20 pts)

- 6) A wheel of radius 0.2 meters is traveling at 10 meters per second. What is its angular speed? (15 pts)

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