

MATH 1112 – Quiz 2 (Version 1) Solutions

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Name _____

Instructions. No calculators allowed on this quiz!

1. Prove the trigonometric identity $1 + \tan^2(\theta) = \sec^2(\theta)$. Your proof must include a picture and some written words (not just equations).

2. Below are six formulas and five graphs. Match each formula with its graph.

a) $y = 3 \cos(x)$ matches Graph 2

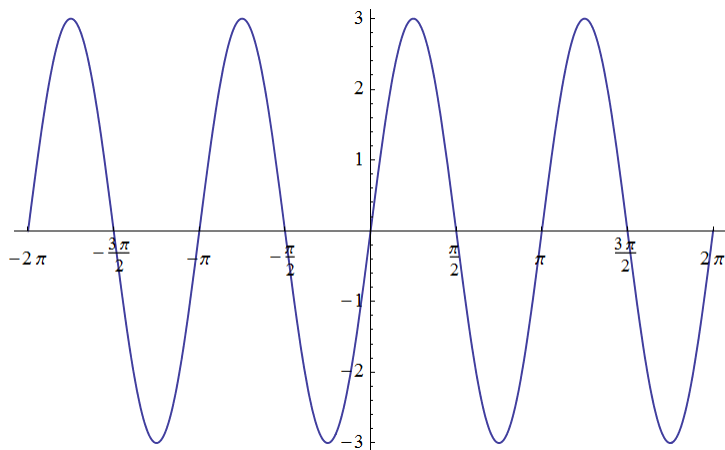
b) $y = 3 \sin(x)$ matches Graph 3

c) $y = 3 \sin(\frac{1}{2}x)$ matches Graph 4

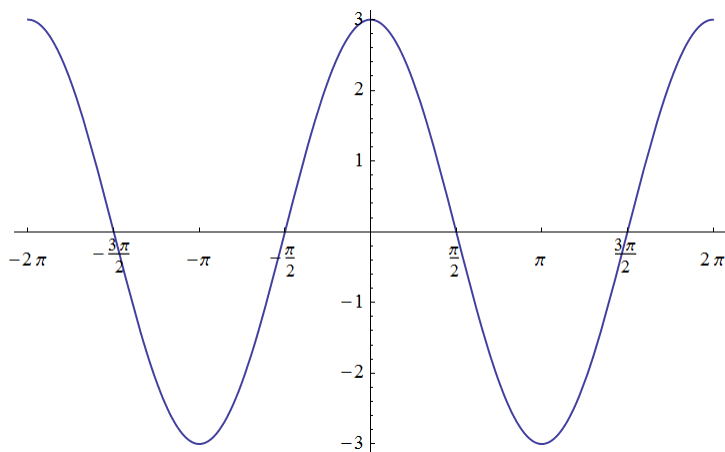
d) $y = 3 \sin(2x)$ matches Graph 1

e) $y = -3 \cos(2x)$ matches Graph 5

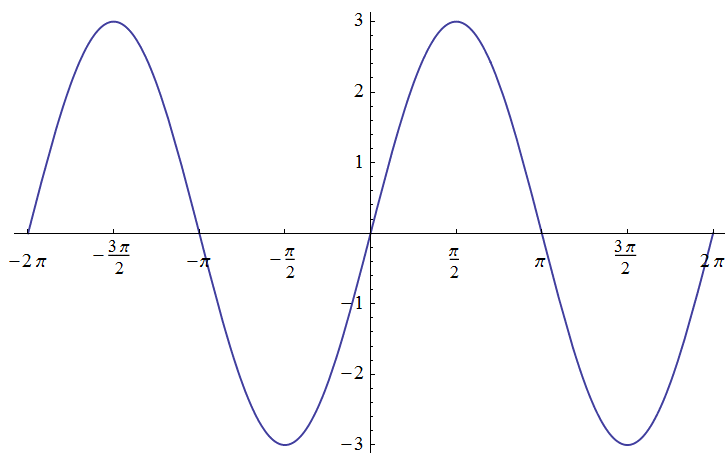
e) $y = 3 \sin(-\frac{1}{2}x)$ matches Graph 6



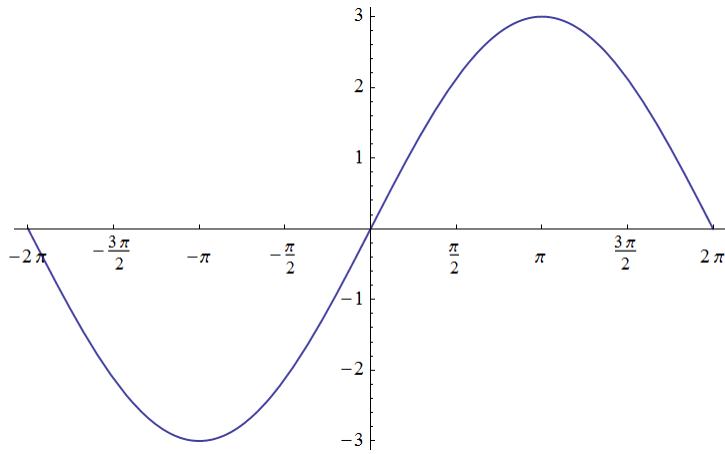
Graph 1



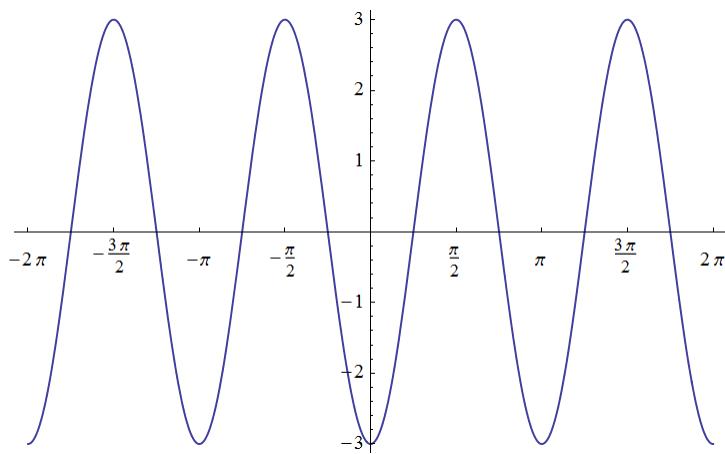
Graph 2



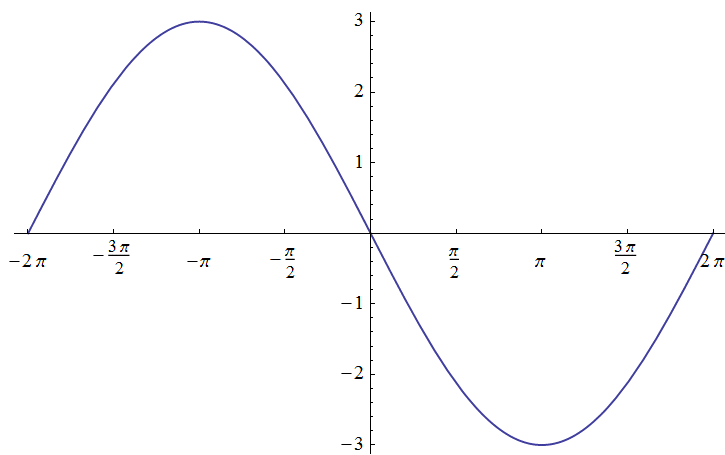
Graph 3



Graph 4



Graph 5



Graph 6