

MAT 120 Quiz 4 Answer Sheet

Fall 2022

Quiz ID: JST

Name: _____

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Submit electronic answers at

<http://azrael.digipen.edu/cgi-bin/MAT120quiz.pl>

MAT 120

Quiz 4

Fall 2022

- Which angle has the same terminal point as $7\pi/2$:
a) $-\pi/4$ b) $-\pi$ c) $-3\pi/2$ d) $-\pi/2$ e) 0
- Which angle has the same terminal point as $17\pi/4$:
a) $\pi/4$ b) $-\pi$ c) $-3\pi/2$ d) $-\pi/2$ e) 0
- Find $(\sin^2(-\pi/4)) + (\cos^2(-\pi/4))$:
a) -1 b) $\frac{\sqrt{3}}{2}$ c) $\frac{\sqrt{2}}{2}$ d) 0 e) 1
- Find $\cos(3\pi/4)$:
a) $-\frac{\sqrt{3}}{2}$ b) $\frac{\sqrt{3}}{2}$ c) $\frac{\sqrt{2}}{2}$ d) $-\frac{\sqrt{2}}{2}$ e) 0
- Find $\cos(3\pi/2)$:
a) $-\frac{\sqrt{3}}{2}$ b) $-\frac{\sqrt{2}}{2}$ c) $\frac{\sqrt{3}}{2}$ d) $\frac{\sqrt{2}}{2}$ e) 0
- Find $\sin(5\pi/6)$:
a) $\frac{1}{2}$ b) $-\frac{\sqrt{2}}{2}$ c) $\frac{\sqrt{3}}{2}$ d) $\frac{\sqrt{2}}{2}$ e) 0
- What is the period of the function: $\sin(8\pi t)$?
a) 1 b) 0.25 c) 0.2 d) 5 e) 4
- Suppose a function (or signal) is the product of two sinusoids: $f(t) = \sin(2\pi 220t) \sin(2\pi 3t)$. How many beats (amplitude oscillations) per second does this produce?
a) 8 b) 1 c) 4 d) 6 e) 2
- Same function f as in the previous problem. What is the audible frequency?
a) 220 Hz b) 880 Hz c) 440 Hz d) 6 Hz e) 3 Hz
- Same function f as in the previous problem. One of the factors is a Low Frequency Oscillator (LFO). What is the length of one period of the function that gives the LFO?
a) 2 b) $\frac{2}{3}$ c) $\frac{1}{6}$ d) $\frac{1}{2}$ e) $\frac{1}{3}$