

MAT 120 Quiz 4 Answer Sheet

Fall 2022

Quiz ID: ZFM

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) $-3\pi/2$ b) $-\pi/4$ c) $-\pi/2$ d) 0 e) $-\pi$
- Which angle has the same terminal point as $17\pi/4$:
a) $-3\pi/2$ b) $\pi/4$ c) $-\pi/2$ d) 0 e) $-\pi$
- Find $(\sin^2(-\pi/4)) + (\cos^2(-\pi/4))$:
a) $\frac{\sqrt{2}}{2}$ b) -1 c) 0 d) 1 e) $\frac{\sqrt{3}}{2}$
- Find $\cos(3\pi/4)$:
a) $\frac{\sqrt{2}}{2}$ b) $-\frac{\sqrt{3}}{2}$ c) $-\frac{\sqrt{2}}{2}$ d) 0 e) $\frac{\sqrt{3}}{2}$
- Find $\cos(3\pi/2)$:
a) $\frac{\sqrt{3}}{2}$ b) $-\frac{\sqrt{3}}{2}$ c) $\frac{\sqrt{2}}{2}$ d) 0 e) $-\frac{\sqrt{2}}{2}$
- Find $\sin(5\pi/6)$:
a) $\frac{\sqrt{3}}{2}$ b) $\frac{1}{2}$ c) $\frac{\sqrt{2}}{2}$ d) 0 e) $-\frac{\sqrt{2}}{2}$
- What is the period of the function: $\sin(8\pi t)$?
a) 0.2 b) 1 c) 5 d) 4 e) 0.25
- 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) 4 b) 8 c) 6 d) 2 e) 1
- Same function f as in the previous problem. What is the audible frequency?
a) 440 Hz b) 220 Hz c) 6 Hz d) 3 Hz e) 880 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) $\frac{1}{6}$ b) 2 c) $\frac{1}{2}$ d) $\frac{1}{3}$ e) $\frac{2}{3}$