

MAT 120 Quiz 4 Answer Sheet

Fall 2022

Quiz ID: QDC

Name: _____

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

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