Math 1330
**Homework 16 (5.1a)**

Problem 5.1.2 refers to problem 2 in Chapter 5, Section 1 in the online text.  Record your answers to all the problems in the EMCF titled "**Homework 16**."

1.    Problem 5.1.2, find $csc$(t)

   A.    $\dfrac{2\sqrt{6}}{5}$        B.    $-\dfrac{2\sqrt{6}}{5}$        C.    $-2\sqrt{6}$        D.    $-5$        E.    $-\dfrac{5\sqrt{6}}{12}$

2.    Problem 5.1.6, find  $cos$(t)

   A.    $\dfrac{8}{17}$        B.    $\dfrac{15\sqrt{161}}{161}$        C.    $-\dfrac{8\sqrt{161}}{161}$        D.    $-\dfrac{8}{17}$        E. None of these

3.    Problem 5.1.8, find  $sin$(t)

   A.    $\dfrac{1}{7}$        B.    $-\dfrac{1}{7}$        C.    $-\dfrac{4\sqrt{3}}{7}$        D.    $\dfrac{4\sqrt{3}}{7}$        E. None of these

4.    Problem 5.1.10 a

   A.    $\dfrac{1}{2}$        B.    $-\dfrac{1}{2}$        C.    $\dfrac{\sqrt{3}}{2}$        D.    $-\dfrac{\sqrt{3}}{2}$        E. None of these

5.    Problem 5.1.12 a

   A.    $-1$        B.    $-\dfrac{1}{2}$        C.    $0$        D.    $\dfrac{1}{2}$        E.    $1$

6.    Problem 5.1.12 b

   A.    $-\dfrac{\sqrt{3}}{3}$        B.    $\dfrac{\sqrt{3}}{3}$        C.    $\sqrt{3}$        D.    $-\sqrt{3}$        E.    $-1$

7.     Problem 5.1.16 a

   A.    $\dfrac{1}{2}$        B.    $-\dfrac{1}{2}$        C.    $\dfrac{\sqrt{3}}{2}$        D.    $-\dfrac{\sqrt{3}}{2}$        E.    $-\dfrac{\sqrt{2}}{2}$

8.    Problem 5.1.18 a

A.    $\dfrac{2\sqrt{3}}{3}$        B.    2        C.    −2        D.    $-\dfrac{2\sqrt{3}}{3}$        E. None of these

9.    Problem 5.1.22 b – leave your answer in improper form

A.    $\dfrac{1}{\sqrt{3}}+2$        B.    $\dfrac{1}{\sqrt{3}}-2$        C.    $\dfrac{1}{\sqrt{3}}-\dfrac{2}{3}$        D.    $\dfrac{1}{\sqrt{3}}-\dfrac{1}{2}$        E. None of these

10.    Problem 5.1.24 a

A.    $\dfrac{-2\sqrt{3}}{3}-1$        B.    $\dfrac{2\sqrt{3}}{3}-1$        C.    1        D.    −1        E. None of these

11.    If $\sin\theta=\dfrac{2\sqrt{5}}{5},\quad \cos\theta=\dfrac{\sqrt{5}}{5}$  find  $\cot\theta$.

A.    2        B.    $\dfrac{1}{2}$        C.    $\sqrt{5}$        D.    $\dfrac{\sqrt{5}}{5}$        E. None of these

12.    If $\sin\theta=\dfrac{2}{3},\quad \tan\theta<0$, find $\sec\theta$.

A.    3        B.    $\dfrac{3}{2}$        C.    $\dfrac{3\sqrt{5}}{5}$        D.    $\dfrac{-3\sqrt{5}}{5}$        E. None of these

13.    $4\csc\left(\dfrac{3\pi}{4}\right)-\cot\left(\dfrac{-\pi}{4}\right)=$

A.    $4\sqrt{2}+1$        B.    $-4\sqrt{2}+1$        C.    $2\sqrt{2}+1$        D.    $-2\sqrt{2}-1$        E. None of these

14.    $\left(\tan 30°\right)\left(\cot 30°\right)=$

A.    1        B.    −1        C.    $\sqrt{3}$        D.    $\dfrac{\sqrt{3}}{3}$        E. None of these

15.    If $\sec\theta=\dfrac{5}{4},\quad \tan\theta>0$, find $\cot\theta$.

A.    $\dfrac{3}{4}$        B.    $\dfrac{3}{5}$        C.    $\dfrac{4}{3}$        D.    $\dfrac{5}{3}$        E. None of these