AP: Homework
2/26-3/2

on: Tuesday: test

due: Thursday: read pp. 49-51

1. Evaluate:
   a. $tan^{-1}(-1)$ d. $csc^{-1}(2)$ g. $\sin[sin^{-1}\left(-\frac{1}{2}\right) + cos^{-1}\left(-\frac{1}{2}\right)]$
   b. $sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)$ e. $\sin[cos^{-1}\left(\frac{\sqrt{2}}{2}\right)$ h. $\sec[tan^{-1}(1) + csc^{-1}(1)$
   c. $cos^{-1}\left(-\frac{1}{2}\right)$ f. $\cot[sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)$ i. $cot^{-1}\left[cot\left(-\frac{\pi}{4}\right)\right]$
2. Find the range of the function $f(x) = \cos(tan^{-1}x)$.

Friday: read pp. 165-169
pg. 170 / #1, 4, 7, 12, 13, 16, 19, 23

Monday:

1. Evaluate:
   a. $\int \frac{4dx}{1+x^2}$ c. $\int \frac{dx}{\sqrt{9-x^2}}$ e. $\int \frac{7dx}{x\sqrt{25x^2-4}}$
   b. $\int \frac{dx}{x\sqrt{4x^2-1}}$ d. $\int \frac{dx}{\sqrt{1-4x^2}}$ f. $\int \frac{dx}{9+3x^2}$
2. Find the volume of the solid generated when the region bounded by $y = \frac{1}{\sqrt{1+x^2}}$ and the x-axis from $x = -\frac{\sqrt{3}}{3}$ to $x = \sqrt{3}$ is rotated about the x-axis.
3. Solve: $\frac{dy}{dx} = \frac{1}{\sqrt{1-x^2}}$ given $y = 1$ when $x = 0$.

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