Math 101 (03): Homework #8

due Thursday, Oct.21

All even problems from the Chapter 6 (pages 39-41).

Find the derivative dy/dx.

2. $y = -\dfrac{3}{2}\cos x$; also, what is $y'(\pi/3)$?

4. $y = \dfrac{1}{\sqrt{2}}\sin\sqrt{2}x - \cos \pi x$

6. $y = \cos(x^2 - 3x + 7)$

8. $y = \cos^2 x - 3\cos x + 7$; also, what is $y'(7\pi/6)$?

10. $y = \sqrt[3]{\sin x} + \sqrt[5]{\cos 5x}$

12. $y = \sin\sqrt[3]{x^3 - 2x + 1}$

14. $y = \dfrac{\cos^2 x + 3\sin x}{\sin^2 x + x^2}$

16. $y = \pi \sin^3 \pi x$; also, what is $y'(5/3)$?

18. $y = \cos^4(5x - \pi/2)$