AP Calculus Derivatives Review Worksheet

nd the derivative of each function. Express final answer in simplified factored form and box your answers. **Complete on a separate sheet of paper. Final answers should not have negative exponents!**

1. $f(x)=\dfrac{-2}{x^2+1}$

2. $f(x)=3\sin(x)-5\cot(x)$

3. $f(x)=x^2-\dfrac{1}{2x}$

4. $f(x)=x\cdot\sin(2x)$

5. $f(x)=\dfrac{2x^2+3x+4}{(x-2)^2}$

6. $f(x)=\sqrt{\sin(x)}$

7. $f(x)=\cos\left(\sqrt{1-x^2}\right)$

8. $f(x)=\tan^3(4x)$

9. $f(x)=\cot\left(\dfrac{1}{x}\right)$

10. $f(x)=\cos(\cos(x))+\sin^2(x)$

11. $f(x)=\cos(2)$

12. $f(x)=\sec(x)\tan^3(x)$