Please Differential

1 $f(x) = 3x^2$

2 $f(x) = 4x^3 + 2x^2 - 5x + 1$

3 $g(x) = \sin(2x) + 3\cos(x)$

4 $ye^{2x} \cdot \ln(x)$

5 $y = \arcsin(3x)$