Name:_____

Yr/Section:_____

Date:_____

Direction: Find all the 1st order partial derivatives Show your complete solutions and final answer. Write it on a short bond paper.

1. $f(x,y,z) = x^3\sqrt{y} + 4z^3y^2 - xyz + x^2 - \sqrt[3]{z^5}$

2. $W(a,b,c,d) = a^2 + b^3 - c^2d^4 - 5a^3c - d^6b^2a$

3. $A(p,t,u) = \dfrac{1}{pt^2} - \dfrac{t^3}{u^2} + \dfrac{4up}{t^4}$

4. $g(x,y,z) = \sqrt{x^2 + z^{-2}} + \sin(xy - x^2)$

5. $f(s,t) = \cos\left(se^{t^2}\right) + \cos\left(s + e^{t^2}\right)$

6. $f(x,y) = \ln\left(\dfrac{y}{x}\right) + \ln\left(\dfrac{1}{x+y}\right) - \ln\left(\dfrac{x}{6}\right)$

7. $A(y,z) = \dfrac{1}{y - 4z^5} + \tan(yz^2 - y^3)$

8. $g(u,v) = \dfrac{u}{v}\cos\left(\dfrac{v}{u}\right) + 4u - v^2u$