

Quiz 3 Calculus 3 9/24/2010

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. Find the directional derivative of $f(x, y) = 1 + 2x\sqrt{y}$ at the point $(2, 4)$ in the direction of $\mathbf{v} = \langle -3, 4 \rangle$.

2. Find the gradient of $f(x, y) = y^2 / x$ at $P(1, 2)$.

