

Questions (Week 9)

8. Determine whether the partial derivatives $\partial f/\partial x$ and $\partial f/\partial y$ are positive or negative at the point P on the graph in Figure 7.

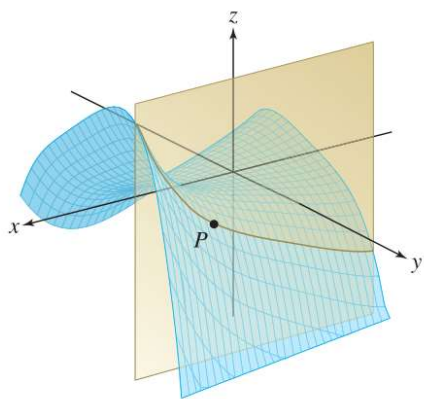


FIGURE 7

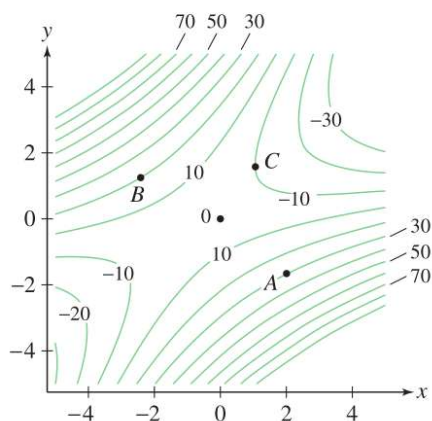


FIGURE 8 Contour map of $f(x, y)$.

10. Is f_x positive or negative at B ?

11. Starting at point B , in which compass direction (N, NE, SW, etc.) does f increase most rapidly?

12. At which of A , B , or C is f_y smallest?

Compute partial derivatives

21. $z = (\sin x)(\sin y)$

34. $z = y^x$

38. $w = \frac{x}{y+z}$