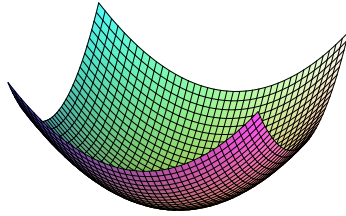


MAT2454 - Cálculo II - POLI

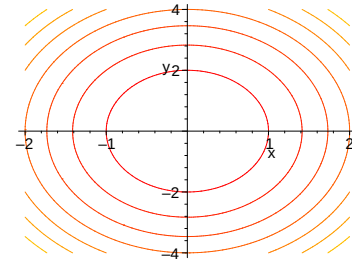
Alguns gráficos interessantes e suas curvas de nível

1. $f(x, y) = 4x^2 + y^2$

gráfico:

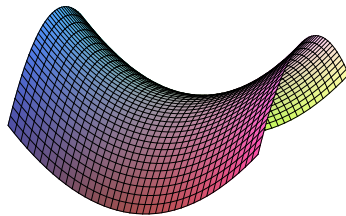


curvas de nível:

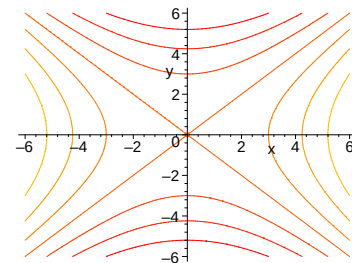


2. $f(x, y) = x^2 - y^2$

gráfico:

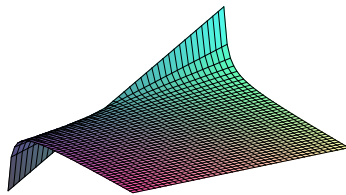


curvas de nível:

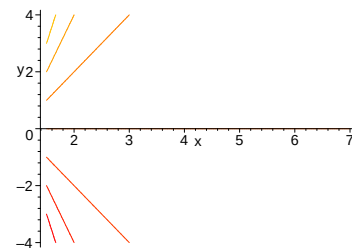


3. $f(x, y) = \frac{y}{x-1}, x > 1$

gráfico:

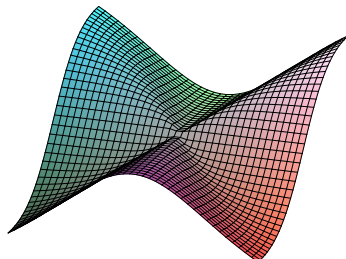


curvas de nível:

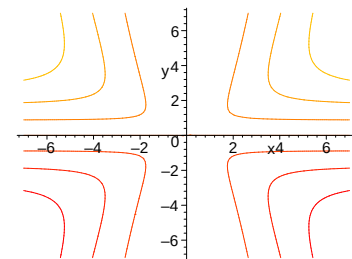


4. $f(x, y) = \frac{x^2 y}{x^2 + y^2}$

gráfico:

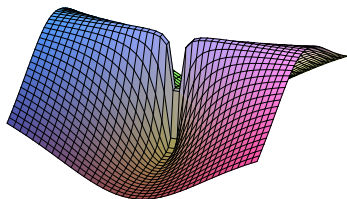


curvas de nível:

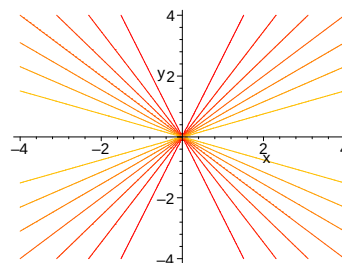


5. $f(x, y) = \frac{x^2 - y^2}{x^2 + y^2}$

gráfico:

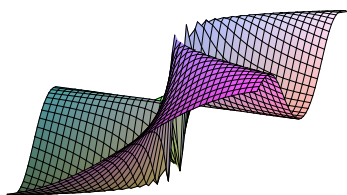


curvas de nível:

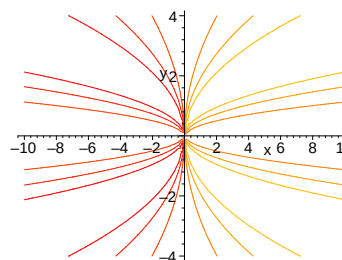


6. $f(x, y) = \frac{2xy^2}{x^2 + y^4}$

gráfico:

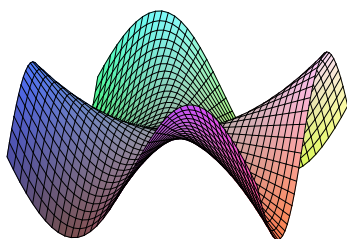


curvas de nível:



7. $f(x, y) = \frac{xy(x^2 - y^2)}{x^2 + y^2}$

gráfico:



curvas de nível:

