Aula 1

MSF

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a) $\frac{\partial h(x,y)}{\partial x} = 8 + 20xy$

b) $\frac{\partial h(x,y)}{\partial y} = 10x^2 + 2y$

c) $\frac{\partial p(x,y,z)}{\partial x} = -4y + 20xyz$

1

a) $S = P + Q = 35 \pm 2$ cm

b) $D = P - Q = 15 \pm 2$ cm

c)

$PQ = 250$ $\qquad \frac{\Delta M}{M} = \frac{1}{25} + \frac{1}{10} = 0,14$

$\Leftrightarrow \frac{\Delta M}{250} = 0,14 \Leftrightarrow \Delta M = 35$

$M = (25 \pm 3,5) \times 10$ cm^2

2

a) $S = 30,1 \pm 0,4$ cm

b) $D = 0,3 \pm 0,4$ cm

c) erro relativo $= \left|\frac{\Delta D}{D}\right| = \frac{0,4}{0,3} = 1,(3)$

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1 milha = 1609 m

85 milhas/h $= 85 \times 1,609 = 136,765 = 137$ km/h