

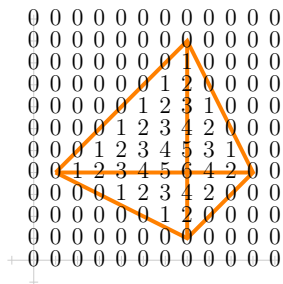
# Cálculo 3 - 2022.1

Mini-teste 1

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<http://angg.twu.net/2022.1-C3.html>

Seja  $z = z(x, y) = F(x, y)$  a função que dá a superfície desta pirâmide:



Lembre que:

$$\frac{\partial f}{\partial \mathbf{v}}(\mathbf{p}) = \lim_{t \rightarrow 0} \frac{f(\mathbf{p} + t \cdot \mathbf{v}) - f(\mathbf{p})}{t}$$

Digamos que  $\mathbf{p} = (5, 3)$  e  $\mathbf{v} = \overrightarrow{(1, 1)}$ .

Calcule  $\frac{f(\mathbf{p} + t \cdot \mathbf{v}) - f(\mathbf{p})}{t}$  para  $t = 4$ ,  $t = 3$ ,  
 $t = 2$ ,  $t = 1$ ,  $t = \frac{1}{2}$ ,  $t = -1$ ,  $t = -\frac{1}{2}$ .



Obs:

Falta eu escrever como a gente descobre que

$f(5.5, 3.5) = 3.5$  e que  $f(4.5, 2.5) = 0.5...$