

Date \_\_\_\_\_

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UAS kalkulus

2. Jika diketahui  $f(x,y) = x^3y - xy^2 + 2x^2$  dengan  $x = st$  dan  $y = 3s - t$

Tentukan :

a.  $\frac{\partial f}{\partial s}$  dan  $\frac{\partial f}{\partial t}$

b.  $\frac{\partial f}{\partial s} \Big|_{s=0, t=1}$  dan  $\frac{\partial f}{\partial t} \Big|_{s=0, t=1}$

Solusi :

$$= x^3y - xy^2 + 2x^2$$

$$= y^2 : (3s - t)^2$$

$$x^2 : (st)^2$$

$$= (st)^3 (3s - t) - st (3s - t)^2 + 2(st)^2$$

Solusi :