

## Derivering med konstanter

| <b>Formel</b> ( $C$ – en konstant, $f$ – ett uttryck) | <b>Exempel</b> ( $x, y, z$ – oberoende variabler)                                     |
|---|---|
| $C' = 0$  | $(x^2 + xy)'_z = 0$   |
| $(f + C)' = f'$                                       | $(z^3 + x^2 + xy)'_z = (z^3)'_z$  |
| $(Cf)' = Cf'$   | $(3xy^2)'_y = 3x(y^2)'_y$   |
| $\left(\frac{f}{C}\right)' = \frac{f'}{C}$            | $\left(\frac{y^2}{3x}\right)'_y = \frac{(y^2)'_y}{3x}$                                |
| $(f^C)' = Cf^{C-1} \cdot f'$                          | $((\sin y)^{\sqrt{x}})'_y = \sqrt{x}(\sin y)^{\sqrt{x}-1}(\sin y)'_y$                 |
| $(C^f)' = C^f \ln C \cdot f'$                         | $((\sin y)^{\sqrt{x}})'_x = (\sin y)^{\sqrt{x}} \cdot \ln \sin y \cdot (\sqrt{x})'_x$ |