

## OVERZICHT FORMULES

### Differentiëren

naam van de regel	functie	afgeleide
somregel	$s(x) = f(x) + g(x)$	$s'(x) = f'(x) + g'(x)$
verschilregel	$v(x) = f(x) - g(x)$	$v'(x) = f'(x) - g'(x)$
productregel	$p(x) = f(x) \cdot g(x)$	$p'(x) = f'(x) \cdot g(x) + f(x) \cdot g'(x)$
quotiëntregel	$q(x) = \frac{f(x)}{g(x)}$	$q'(x) = \frac{f'(x) \cdot g(x) - f(x) \cdot g'(x)}{(g(x))^2}$
kettingregel	$k(x) = f(g(x))$	$k'(x) = f'(g(x)) \cdot g'(x)$ of $\frac{dk}{dx} = \frac{df}{dg} \cdot \frac{dg}{dx}$

### Logaritmen

regel	voorwaarde
${}^g \log(a) + {}^g \log(b) = {}^g \log(ab)$	$g > 0, g \neq 1, a > 0, b > 0$
${}^g \log(a) - {}^g \log(b) = {}^g \log\left(\frac{a}{b}\right)$	$g > 0, g \neq 1, a > 0, b > 0$
${}^g \log(a^p) = p \cdot {}^g \log(a)$	$g > 0, g \neq 1, a > 0$
${}^g \log(a) = \frac{p \log(a)}{p \log(g)}$	$g > 0, g \neq 1, a > 0, p > 0, p \neq 1$