17.1

(1)

> $diff(x^2 - y^2, x, x)$

$$2 \tag{1}$$

> $diff(x^2 - y^2, y, y)$

$$-2 \tag{2}$$

> $\%\% + \%$

$$0 \tag{3}$$

>

(2)

> $f := (x, y) \rightarrow \ln(x^2 + y^2)$

$$f := (x, y) \mapsto \ln(x^2 + y^2) \tag{4}$$

> $diff(f(x, y), x, x)$

$$\frac{2}{x^2 + y^2} - \frac{4x^2}{(x^2 + y^2)^2} \tag{5}$$

> $diff(f(x, y), y, y)$

$$\frac{2}{x^2 + y^2} - \frac{4y^2}{(x^2 + y^2)^2} \tag{6}$$

> $\%\% + \%$

$$\frac{4}{x^2 + y^2} - \frac{4x^2}{(x^2 + y^2)^2} - \frac{4y^2}{(x^2 + y^2)^2} \tag{7}$$

> $simplify(\%)$

$$0 \tag{8}$$

>