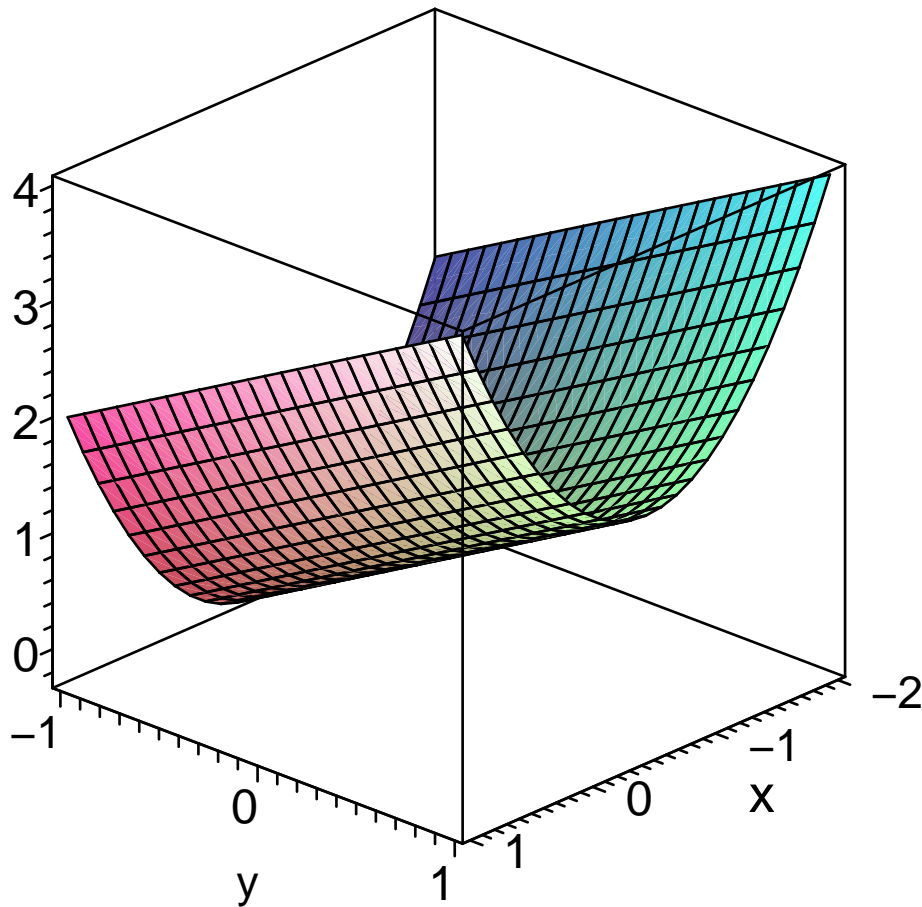> $f := (x, y) \rightarrow 1 + x + y + x^2$

$$f := (x, y) \rightarrow 1 + x + y + x^2 \tag{1}$$

> $fx := unapply(diff(f(x, y), x), (x, y))$

$$fx := (x, y) \rightarrow 1 + 2x \tag{2}$$

> $fy := unapply(diff(f(x, y), y), (x, y))$

$$fy := (x, y) \rightarrow 1 \tag{3}$$

> $with(plots):$

Warning, the name changecoords has been redefined

> $plot3d(f(x, y), x = -2..1, y = -1..1, axes = boxed)$

> $A := int\left(int\left(sqrt\left(1 + fx(x, y)^2 + fy(x, y)^2\right), x = -2..1\right), y = -1..1\right)$

$$A := 3\sqrt{11} - \ln\left(-3\sqrt{2} + \sqrt{2}\sqrt{11}\right) + \ln\left(3\sqrt{2} + \sqrt{2}\sqrt{11}\right) \tag{4}$$

>