

```
> restart;
```

```
> f:=x^2;
```

$$f := x^2$$

```
> fprime:=diff(f,x);
```

$$fprime := 2x$$

```
> int(sqrt(1+fprime^2),x);
```

$$\frac{1}{2}x\sqrt{1+4x^2} + \frac{1}{4}\operatorname{arcsinh}(2x)$$

```
> int(sqrt(1+fprime^2),x=0..4);
```

$$2\sqrt{65} - \frac{1}{4}\ln(-8 + \sqrt{65})$$

```
>
```