Elementární derivování

```
> g:=x->sin(x);
```

$$g := x \to \sin(x)$$

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

$$f := x \to x^2$$

```
> D(f)(x);
```

$$2\,x$$

```
> diff(g(x),x);
```

$$\cos(x)$$

```
>
> (f@g)(x);
```

$$\sin(x)^2$$

```
> f(g(x));
```

$$\sin(x)^2$$

```
> diff(f(g(x)),x);
```

$$2\,\sin(x)\,\cos(x)$$

```
>
> diff(g(f(x)),x);
```

$$2\,\cos(x^2)\,x$$

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

$$f := x \to x^2$$

```
> D(f)(x);
```

$$2\,x$$

```
> D(f)(2);
```

$$4$$

```
> solve(D(f)(x)=0,x);
```

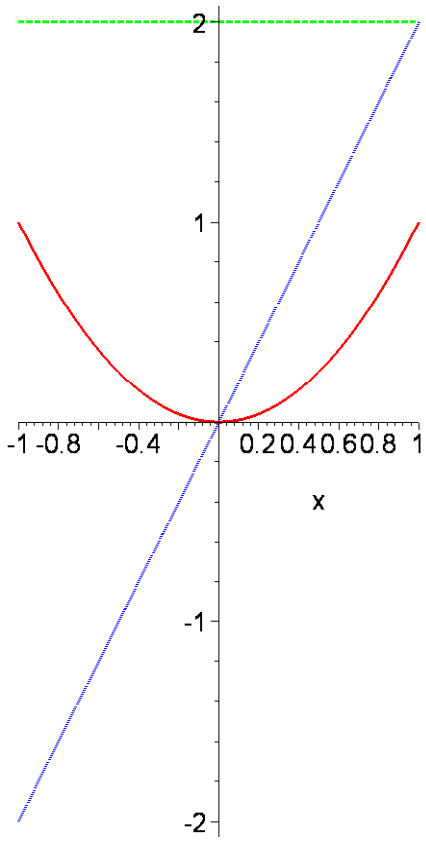
$$0$$

```
>
>
> f:=x->x^2;
  Df1:=diff(f(x),x);
  Df2:=diff(f(x),x$2);
  plot([f(x),Df1,Df2],x=-1..1,color=[red,blue,
  green],linestyle=[SOLID,DOT, DASH],thickness=3,
  scaling=constrained);
```

$$f := x \to x^2$$

$$Df1 := 2\,x$$

$$Df2 := 2$$




```
> 
> 
> 
> 
> 
> 
> Credit:= "I&C, p. 110-111";
```

Credit := "I&C, p. 110-111"

```
> 
> 
```