

```
> restart
> f11 := p → 9.50911307067844964490744883772 - 1.59345896742049960545272093080 p
+ 0.0843458967420499605452720930796 p2
f11 := p → 9.50911307067844964490744883772 + (-1)
```

(1)

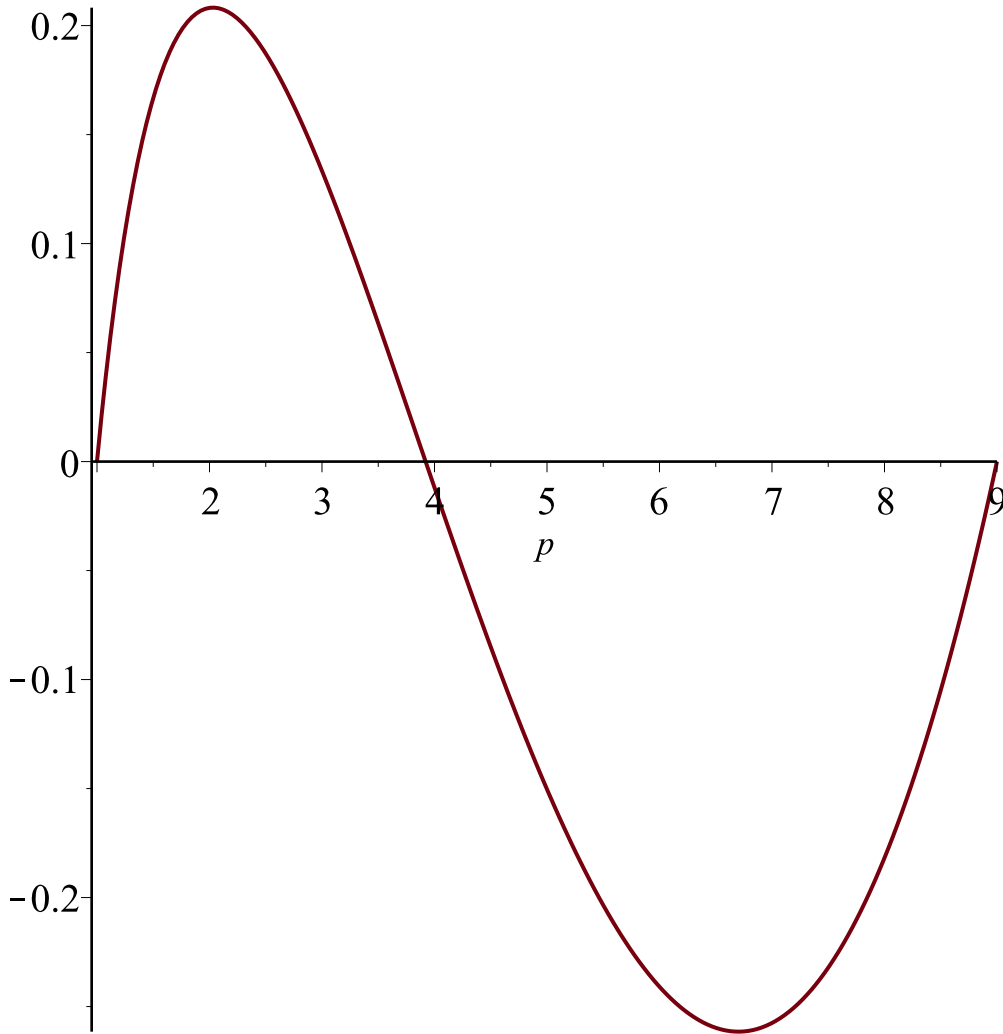
$$-1.59345896742049960545272093080 p + 0.0843458967420499605452720930796 p^2$$

```
> q := p → 9.25591706394346908638624590622 e-0.1 ln(p) - 0.145821487923283585069426899441 p
q := p
```

(2)

$$→ 9.25591706394346908638624590622 e^{(-1) \cdot 0.1 \ln(p) + (-1) \cdot 0.145821487923283585069426899441 p}$$

```
> plot(f11(p) - q(p), p = 1 .. 9)
```



```
> pe := solve(diff(f11(p) - q(p), p) = 0, p) assuming 1 < p < 9
# Only 1 point was returned, while shall be two from above graph, I also tried the abs()
pe := 2.030837315
```

(3)

```
> allvalues(pe) # Only one point returned...
2.030837315
```

(4)

```
> ?solve
```

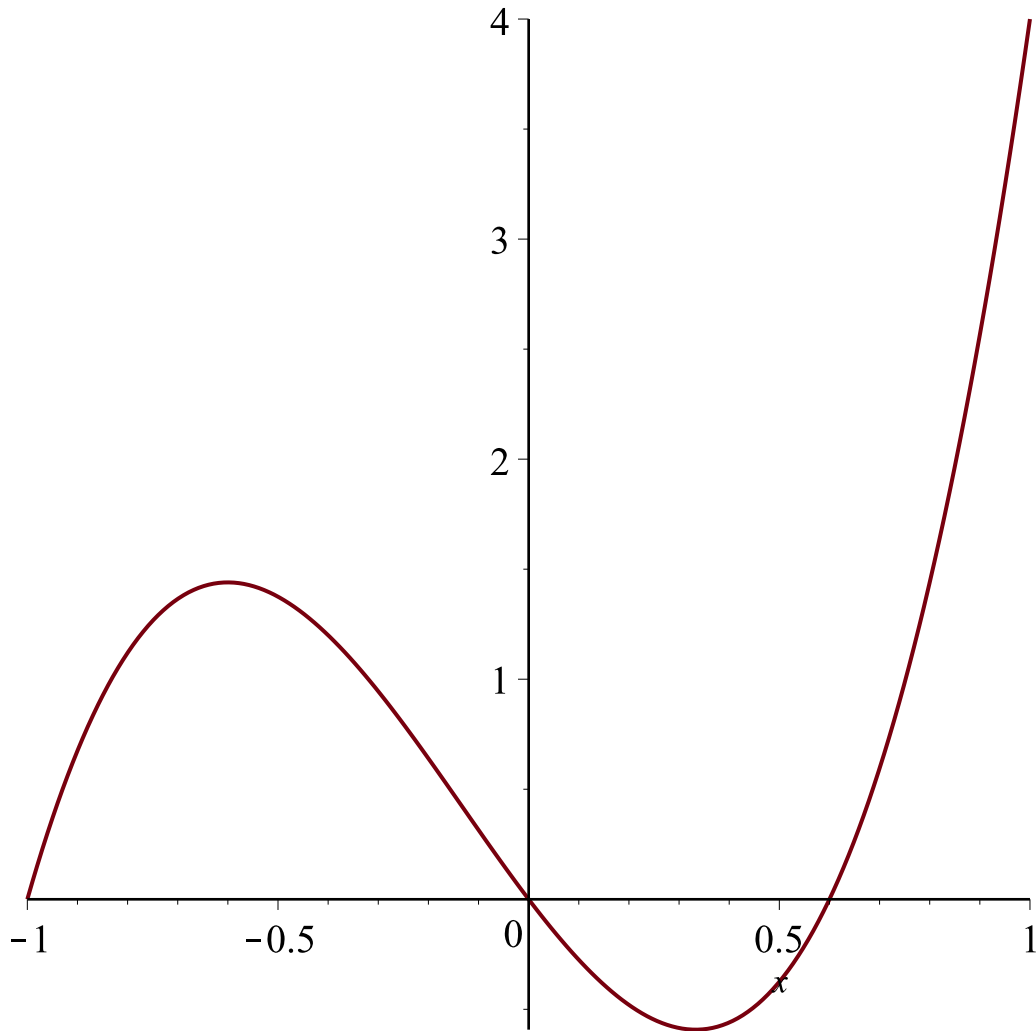
```
> y := x → 5 x3 + 2 x2 - 3 x
```

(5)

$$y := x \rightarrow 5x^3 + 2x^2 - 3x$$

(5)

```
> plot(y(x), x=-1..1)
```



```
> solve(diff(y(x), x) = 0, x) # this is a correct return on simple function
```

$$\frac{1}{3}, -\frac{3}{5}$$

(6)

```
>
```