```
> f(x) := x^3/25 - x/4 - 0.5; # Iniital f(x) function
```

$$f(x) := \frac{1}{25}x^3 - \frac{1}{4}x - 0.5 \quad \textbf{(1)}$$

```
> evalf(minimize(f(x), x=-1..2));
  evalf(maximize(f(x), x=-1..2));

  # Get both min and max value of f(x)
```

$$-0.7405626122$$
$$-0.2900000000 \quad \textbf{(2)}$$

```
> K := evalf(maximize(|f'(x)|, x=-1..2))
   # get the max of the derivative of f(x) between -1 and 2
```

$$K := 0.2500000000 \quad \textbf{(3)}$$

```
>
> p[0] := 0.6;
  p[1] := f(p[0]);
```

$$p_0 := 0.6$$
$$p_1 := -0.4113600000 \quad \textbf{(4)}$$

```
> solve(K^n/(1-K) * |p[1] - p[0]| = 0.002)
```

$$4.698559205 \quad \textbf{(5)}$$

```
>
```