

```
(%i4) f:sqrt(1+x); f0:subst(x=0,f); d1:subst(x=0,diff(f,x));
      p1:f0+d1*x;
```

(f) $\sqrt{x+1}$

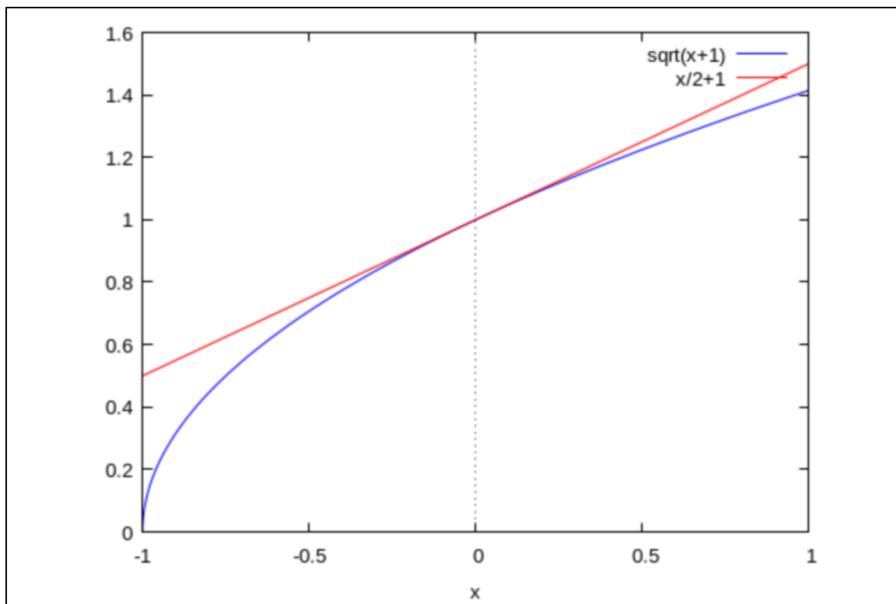
(f0) 1

(d1) $\frac{1}{2}$

(p1) $\frac{x}{2} + 1$

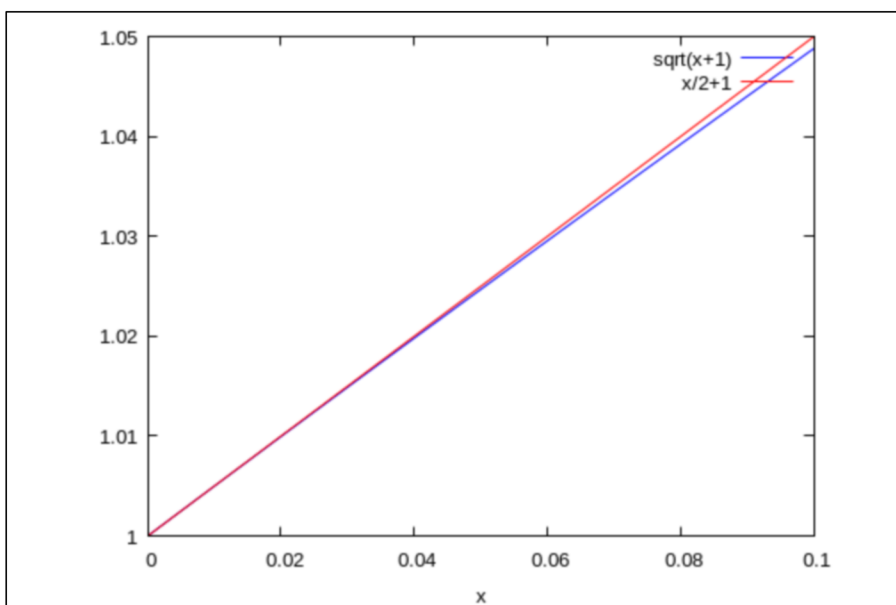
```
(%i5) wxplot2d([f,p1], [x,-1,1])$
```

(%t5)



```
(%i6) wxplot2d([f,p1], [x,0,0.1])$
```

(%t6)



```
(%i15) float(subst(x=0.08,f));
float(subst(x=0.008,p1));
```

```
(%o14) 1.039230484541326
```

```
(%o15) 1.004
```

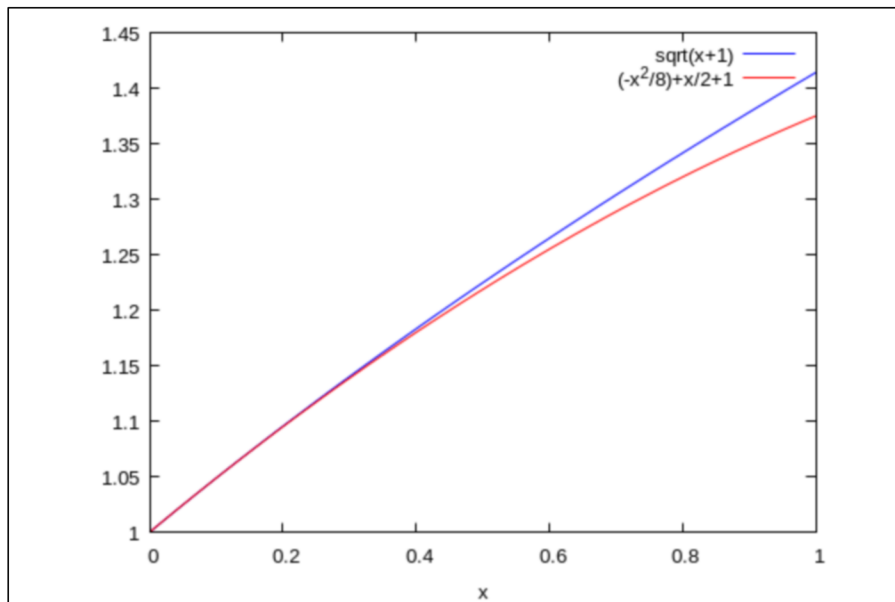
```
(%i8) d2:subst(x=0,diff(f,x,2));
p2:p1+d2·x^2/2;
```

```
(d2)  $-\frac{1}{4}$ 
```

```
(p2)  $-\frac{x^2}{8} + \frac{x}{2} + 1$ 
```

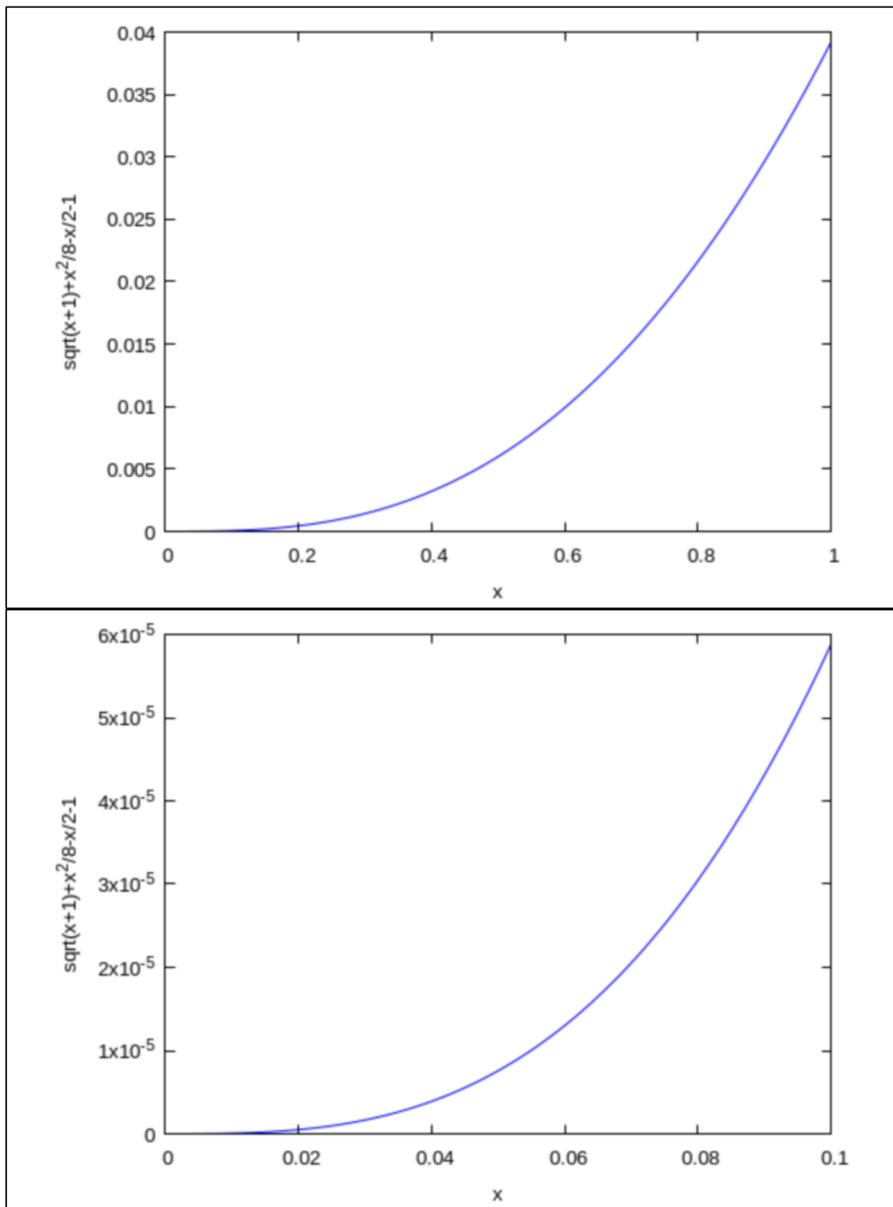
```
(%i9) wxplot2d([f,p2], [x,0,1])$
```

```
(%t9)
```



```
(%i11) wxplot2d(f-p2, [x,0,1])$
wxplot2d(f-p2, [x,0,0.1])$
```

```
(%t10)
```



```
(%i13) float(subst(x=0.08,p2));
float(sqrt(1+0.08));
```

```
(%o12) 1.0392
```

```
(%o13) 1.039230484541326
```