1 Prog Edit Ajouter nxt OK Save

```
dicho(f,p,a,b):= {
local aa,bb,k;
aa:=a;
bb:=b;
k:=0;
while( (bb-aa)>p) {
if (sign((f((bb+aa)/2)))=sign((f(bb))) ) bb:=((aa+bb)/2);
else aa:=((aa+bb)/2);
k:=k+1;
}
return evalf((bb+aa)/2)+ " est la solution trouvØe  aprŁs "  +k+ " itØrati
}:;
```

```
// Parsing dicho
// Success compiling dicho
```

Done

2 Digits:=30:;dicho(x->x^2-2,10^(-30),1,2)

(Done, 1.41421356237309504880168872420969 est la solution trouvØe aprŁs 100 itØrations)

3

4 Prog Edit Ajouter nxt OK Save

```
Newton(f,p,u0):= {
local un,aun,fp,k;
fp:=function_diff(f);
k:=0;
aun:=u0;
un:=u0-f(u0)/fp(u0);
while (abs(un-aun)>p) {
aun:=un; un:=un-f(un)/fp(un);
k:=k+1;
}
return evalf(un)+ " est la solution trouvØe aprŁs " + k +" itØrations" ;
}:;
```

```
// Parsing Newton
// Success compiling Newton
```

Done

5 Digits:=30:;Newton(x->x^2-2,10^(-30),1)

```
// Success
```

(Done, 1.41421356237309504880168872420969 est la solution trouvØe aprŁs 6 itØrations)

6