

In [1]:

```
f(x)=arctan(x/10)-arctan(x/40)
show(f)
```

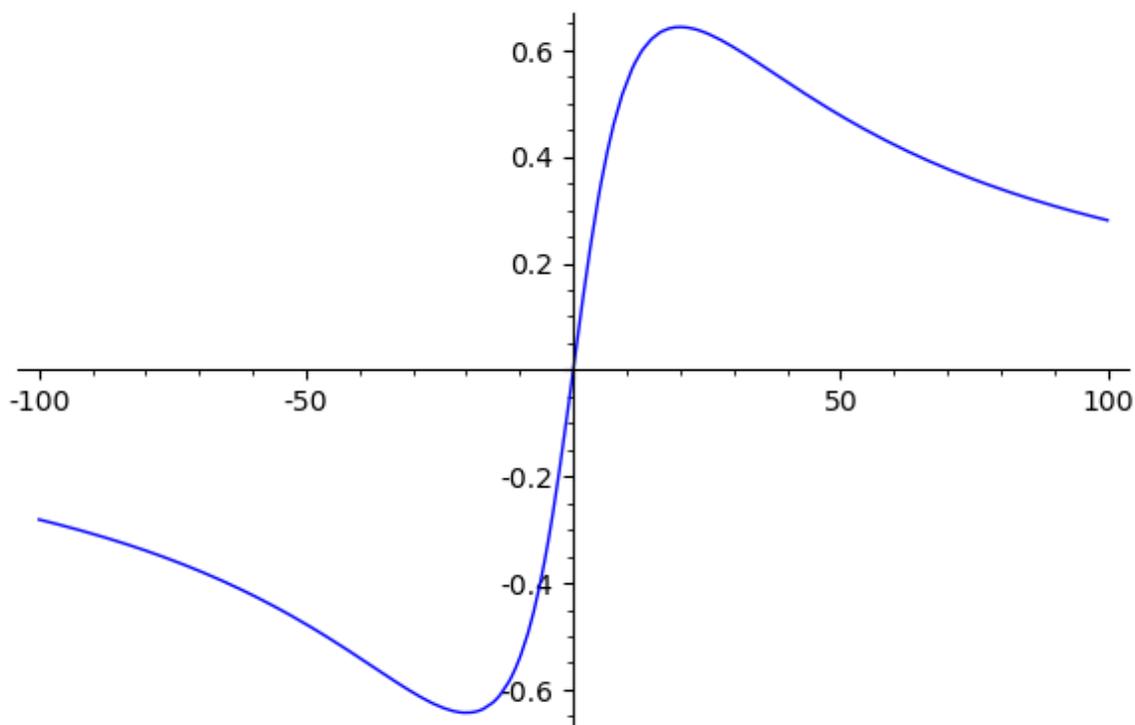
Out[1]:

$$x \mapsto \arctan\left(\frac{1}{10}x\right) - \arctan\left(\frac{1}{40}x\right)$$

In [2]:

```
plot(f(x),x,-100,100)
```

Out[2]:



In [3]:

```
fdash(x)=derivative(f(x),x)
show(fdash)
```

Out[3]:

$$x \mapsto -\frac{40}{x^2 + 1600} + \frac{10}{x^2 + 100}$$

In [4]:

```
bestview=solve(fdash(x)==0,x)
show(bestview)
```

Out[4]:

$$[x = (-20), x = 20]$$

In [5]:

```
plot(fdash(x),x,-100,100)
```

Out[5]:

