

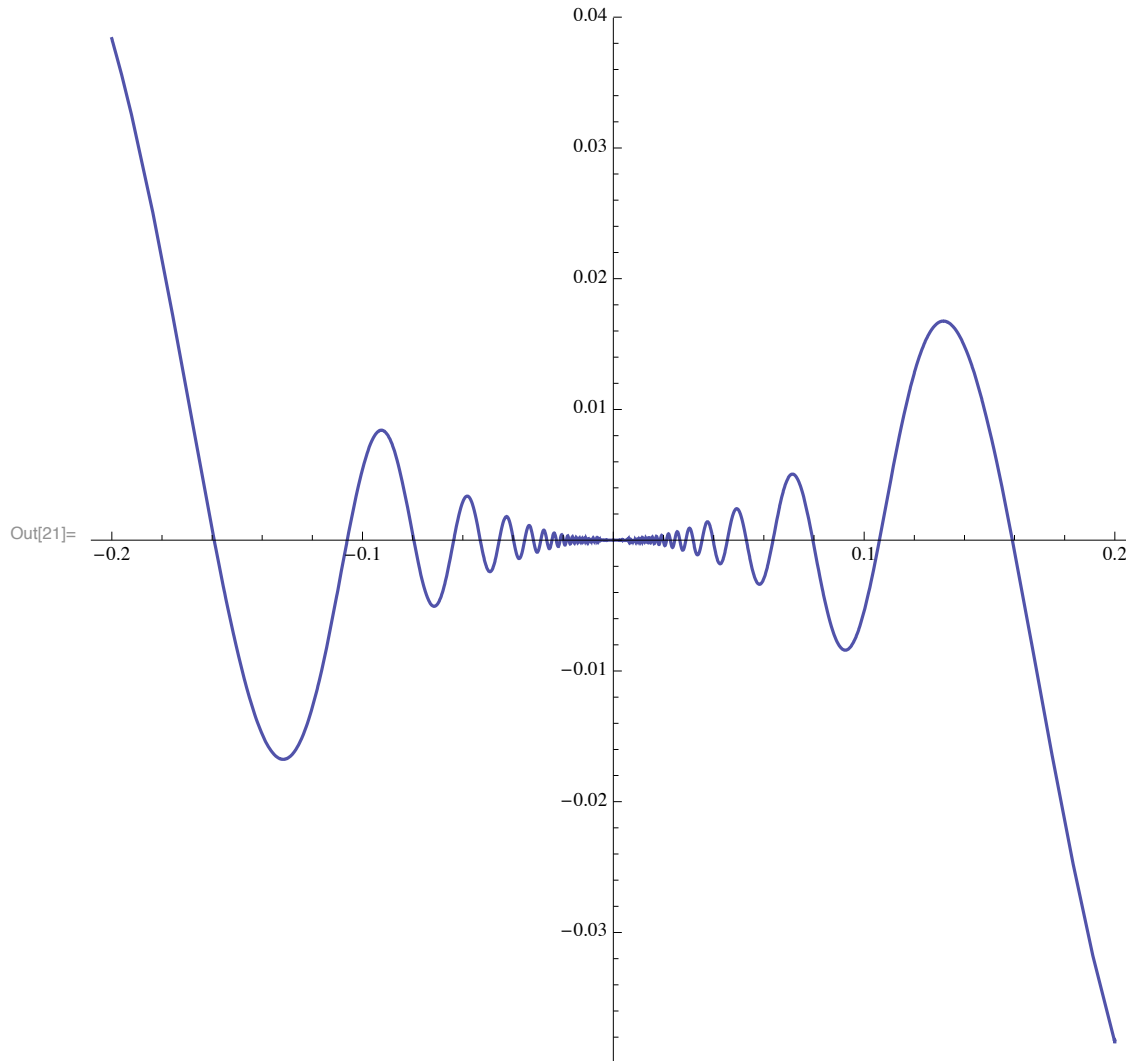
```
In[7]:= f[x_] := (x^2) * Sin[1/x]
```

```
In[8]:= f[x]
```

```
Out[8]= x^2 Sin[ $\frac{1}{x}$ ]
```

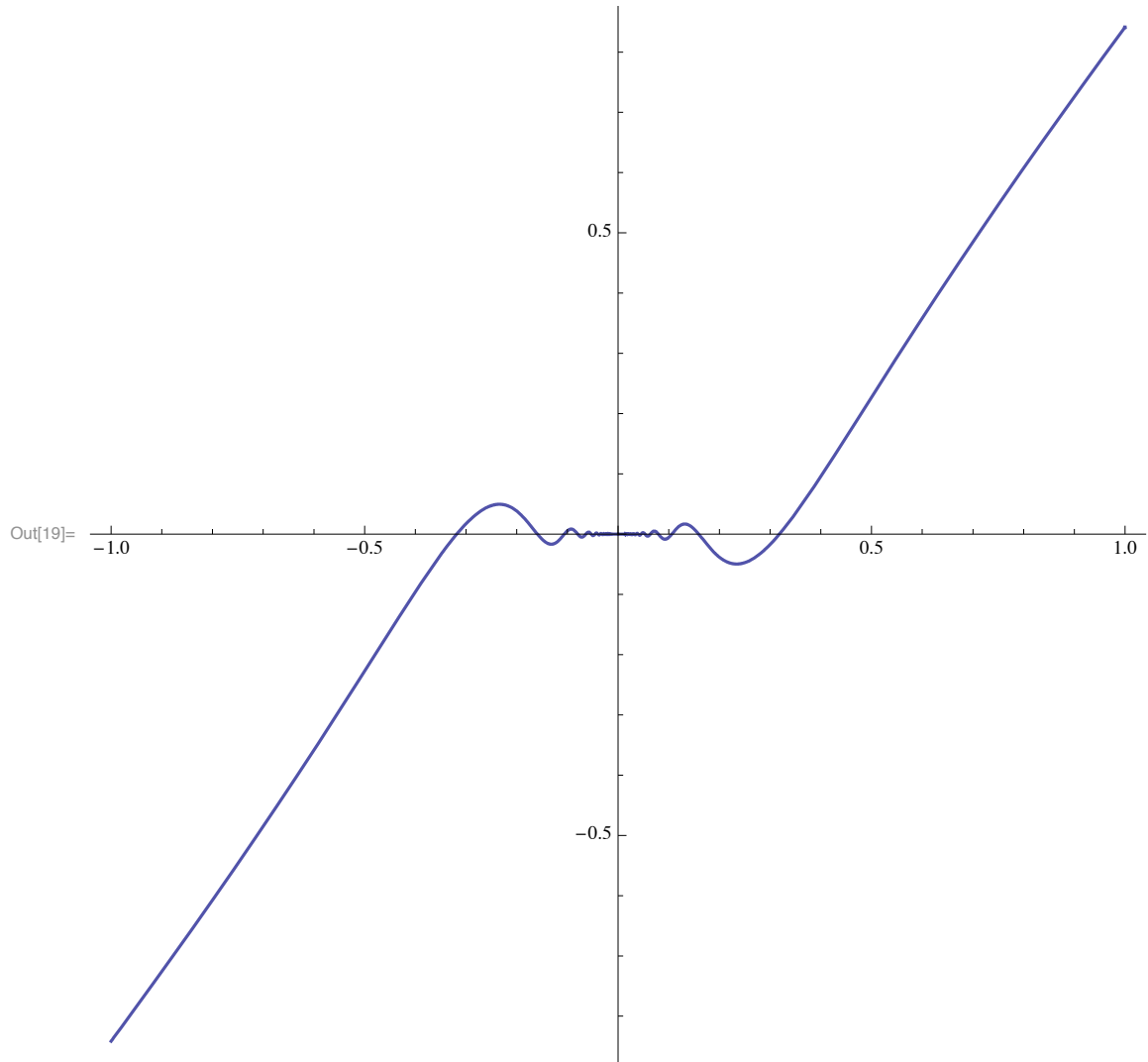
## Graph of f on [-.2, .2]

```
In[21]:= Plot[f[x], {x, -.2, .2}, Exclusions -> {x == 0}, PlotStyle -> {Thickness[.003]}, AspectRatio -> 1]
```



# Graph of f on [-1, 1]

```
In[19]:= Plot[f[x], {x, -1, 1}, Exclusions -> {x == 0}, PlotStyle -> {Thickness[.003]}, AspectRatio -> 1]
```



Graph of  $h(x) = 3.1x - x^2 \sin\left[\frac{1}{x}\right]$  on  $[-1, 1]$

```
In[17]:= h[x_] := 3.1 * x - f[x]
```

```
In[18]:= h[x]
```

```
Out[18]= 3.1 x - x^2 Sin[ $\frac{1}{x}$ ]
```

```
In[20]:= Plot[h[x], {x, -1, 1}, Exclusions -> {x == 0}, PlotStyle -> {Thickness[.003]}, AspectRatio -> 1]
```

