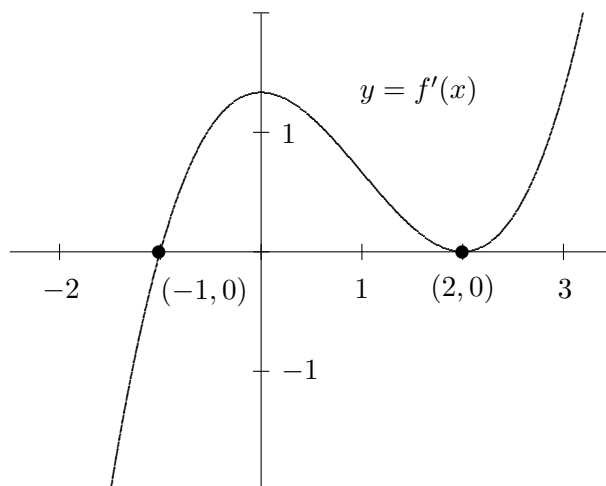


When using  $\text{\LaTeX}$ , you can drop a tex file into a problem by invoking the `pictex` and `graphicx` package. The code in the preamble is:

```
\usepackage{pictex}
```

```
\usepackage[pdftex]{graphicx}
```

1. Consider the graph of  $y = f'(x)$



State all the intervals where  $f(x)$ , the original function, is increasing.

State all the intervals where  $f(x)$  is decreasing.

Draw an approximate graph of  $y = f''(x)$ . Indicate your scales.

State all the intervals where  $f(x)$  is concave up.

The above graph was included in the file with the following code:

```
\centerline{ \input testpict1.tex }
```

To drop a jpeg into a  $\text{\TeX}$  document you should use the following code:

```
\centerline{  
\includegraphics[scale=.5]{petemarsh.jpg}  
} % end center
```

But the formatting of a jpeg is difficult. See the following.

“A find in 1984 in Lindow Moss, Cheshire, adds a new dimension to the picture of interest in new places. Workmen watching a peat cutting machine found parts of a human body preserved in the water logged peat about 0.7 metres ( $2\frac{1}{4}$  feet) below the present surface. Excavations...revealed that the body, which was that of a man, had been garroted and then dumped on the surface of the bog in a shallow pool. Details of the stratigraphy in which the body was found, and preliminary radiocarbon dates, suggest that Lindow Man, or *Pete Marsh* as he is affectionately known to those who found him, was executed some time towards the end of the first millennium BC or early first millenium AD.”



Done in L<sup>A</sup>T<sub>E</sub>X.