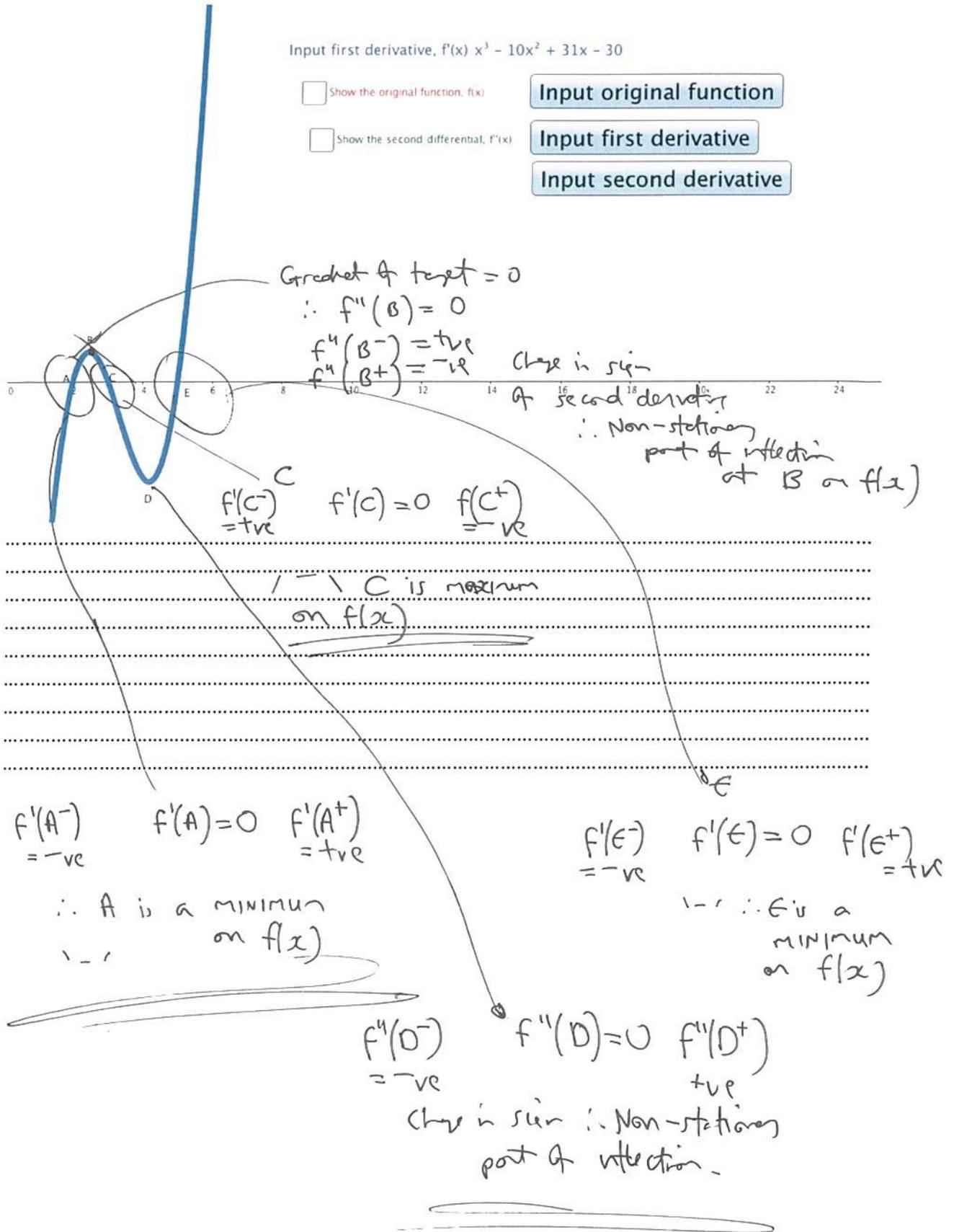
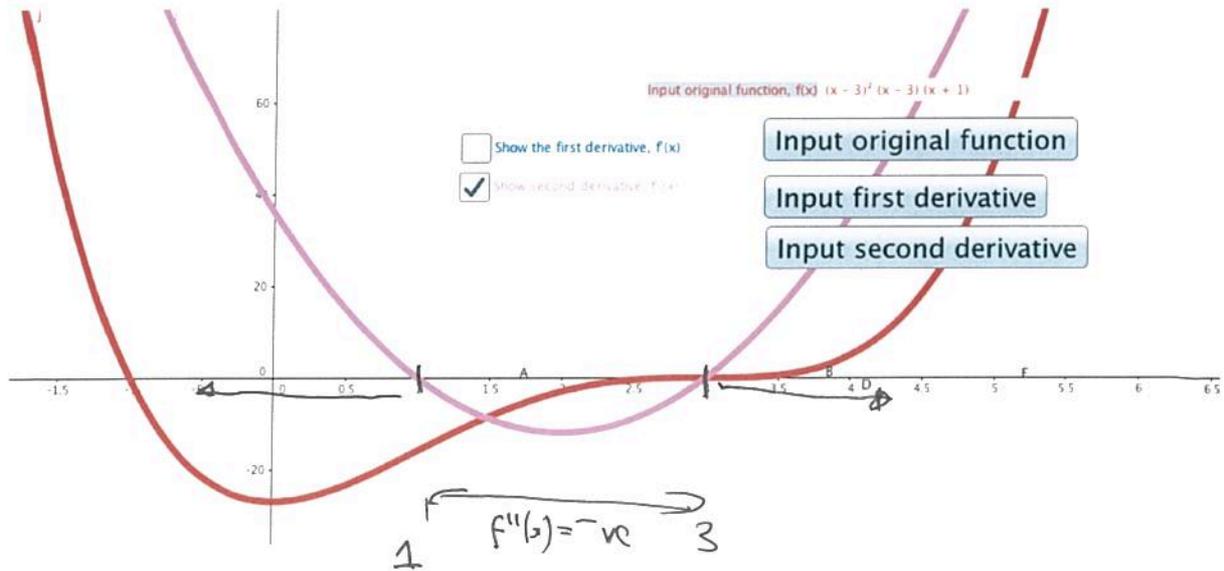


1. Given the below graph of $f'(x)$.

What do Point A, Point B, Point C, Point D and Point E represent on the original function, $f(x)$? Explain.



2. Given $f(x)$, and $f'(x)$ as shown on the graph below.



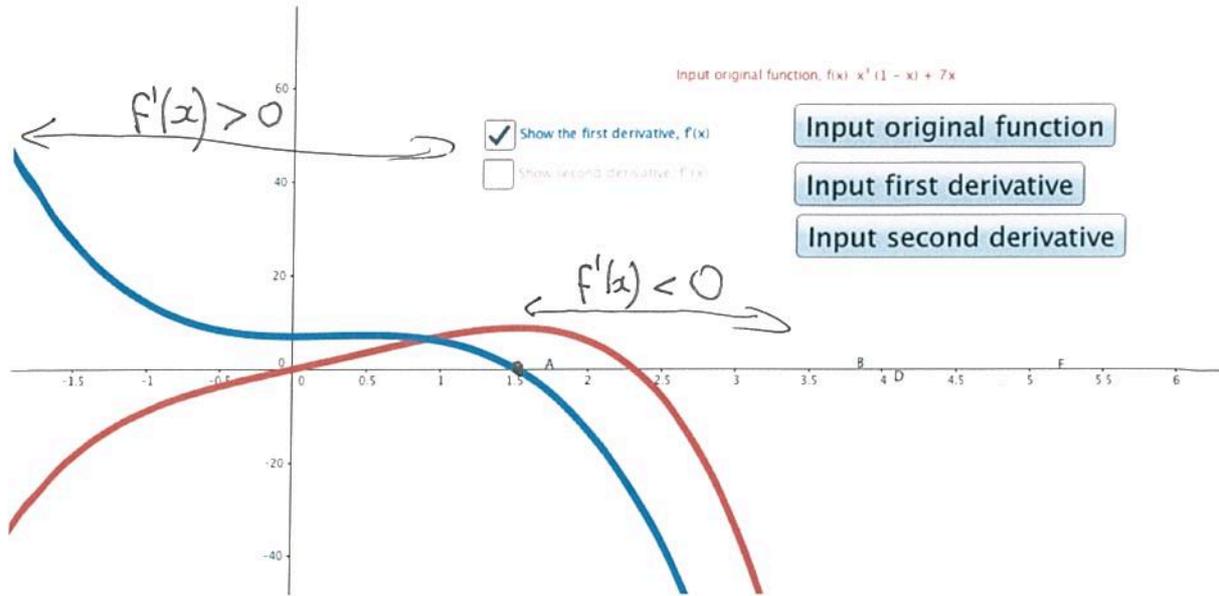
For what values of x is the original curve, $f(x)$ concave up?
 For what values of x is the original curve, $f(x)$ concave down?
 For what values of x is there a non-stationary point of inflection?

Non-stationary point of inflection
 at $x=1$ and 3 .

Concave ~~down~~ ^{up} because $f''(x) > 0$
 $x > 3$ or $x < 1$

Concave down
 $1 < x < 3$ because $f''(x) < 0$

3. Given the graph of $f(x)$ (the red curve), and its derivative $f'(x)$ (the blue curve).



State the values of x for which $f(x)$ is increasing?

State the values of x for which $f(x)$ is decreasing?

$f(x)$ increases $\Rightarrow x < 1.5$

$f(x)$ decreases $\Rightarrow x > 1.5$

