1. What does it mean to say that $a$ is a stationery point for a function $f$?

$$f'(a) = 0$$ (see note 2)

2. Fact: if $f'(x) < 0$ on an interval $(s, t)$, then on that interval $f(x)$ is decreasing.

3. If $a$ is a stationery point of $f$, then $a$ is a local maximum point if $f'$ changes from $\text{POSITIVE}$ to $\text{NEGATIVE}$ at $a$.

(Possible answers might be “CU to CD” or “CD to CU” or “positive to negative” or “decreasing to increasing”, etc).

4. An inflection point occurs at $p$ if which function changes from increasing to decreasing at $a$: $f$, $f'$, or $f''$? $f''$

5. Consider the following graph of the derivative of function $g(x)$; so you are given the graph of $g'(x)$ here. Answer the following questions.

1) On what interval(s) is $g(x)$ decreasing?
2) What are the stationary points of $g(x)$?
3) On what interval(s) is $g(x)$ concave up?
4) Does $g(x)$ have any local maximum points or minimum points? If so, list their $x$-coordinates and classify them (local min or local max).
5) Find all the inflection points of $g(x)$.
6) Make a rough sketch of $g$ on the bottom graph starting at the dot given. Make sure it increases/decreases and is CD/CU where it should be; but you do not need to worry about the location of the $x$-axis.

Note 1: if you want to talk about tangent lines you need to say:

"The slope of the line tangent to the graph of $f$ at $(a, f(a))$ is 0."

Note 2: we'll accept $(1, 5)$ also.