

Group Work 1, Section ~~2.8~~ 2.9

The Major Curve Pieces

1. What can we say about g , g' , and g'' for each of these segments of the graph of $y = g(x)$?

(a)

$$g'(x) > 0$$

$$g''(x) > 0$$

g is increasing

(b)

$g(x)$ is decreasing

$$g'(x) < 0$$

$$g''(x) > 0$$

(c)

g is decreasing

$$g'(x) < 0$$

$$g''(x) < 0$$

(d)

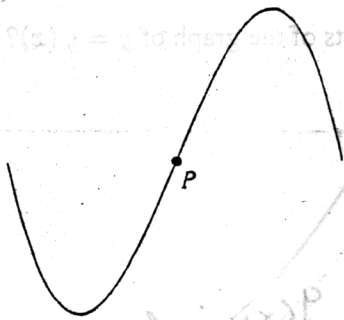
g is increasing

$$g'(x) > 0$$

$$g''(x) < 0$$

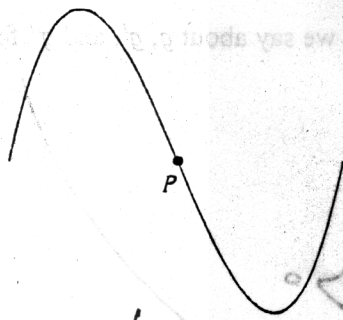
2. What can we say about the values of g , g' , and g'' at each of the following points P on the graph of $y = g(x)$?

(a)



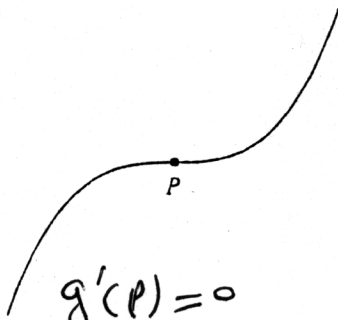
$g'(P) > 0$
 $g''(P) = 0$ and P is Inflection Pt.

(b)



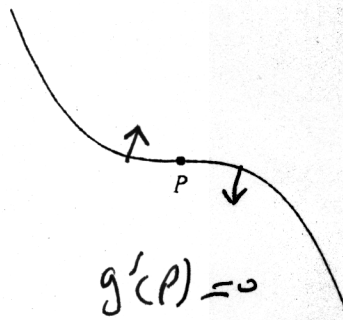
$g'(P) < 0$
 $g''(P) = 0$ and P is I.P.

(c)



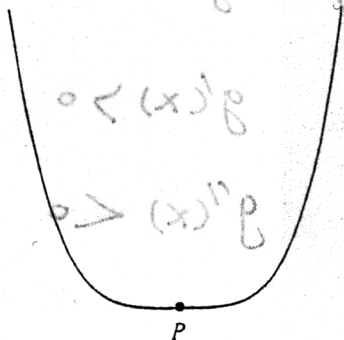
$g'(P) = 0$
 $g''(P) = 0$ and P is I.P.

(d)



$g'(P) = 0$
 $g''(P) = 0$ & P is I.P.

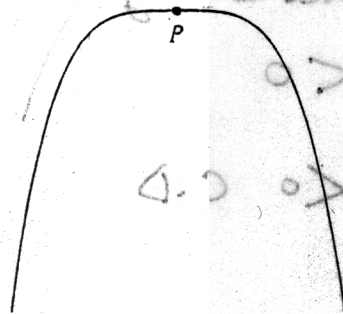
(e)



$g'(P) = 0$

~~$g''(P) = 0$~~

(f)



$g'(P) = 0$

Not an Inf Pt.

~~$g''(P) = 0$~~

EQU TO

