
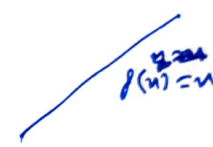


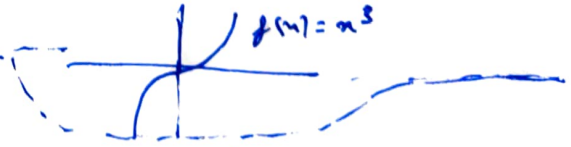

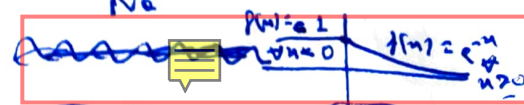


28 AUG 2023

MATH 564

if  $f: \mathbb{R}^n \rightarrow \mathbb{R}$ , which property guarantees  
global sol<sup>n</sup> of  
min of  $f(x)$  s.t.  $x \in \mathbb{R}^n$ ?

#	Property	Required for global minimum?	guarantees global minimum?
1	Continuous	No 	No 
2	Bounded Below	Yes	No 
3	Convex	Yes	Not No  but if bounded domain, it should guarantee.
4	Quasi-convex	Yes	No (obviously). 
5	Coercive.	No 	No 
6	Strictly local minimize	Yes	No 