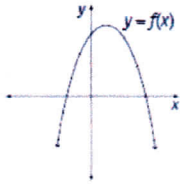
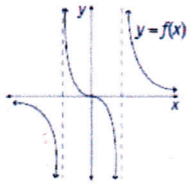
CONTINUITY AND SMOOTHNESS OF A FUNCTION OVER AN INTERVAL

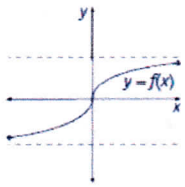
Question 1: State whether the function is continuous or discontinuous

a 

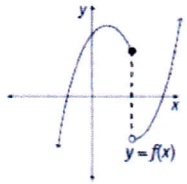
continuous over IR

b 

discontinuous over IR

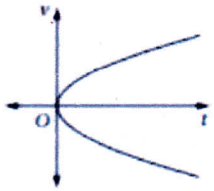
c 

continuous over IR

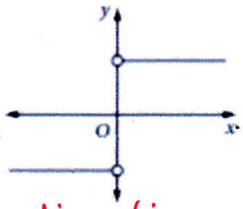
d 

Discontinuous over IR.

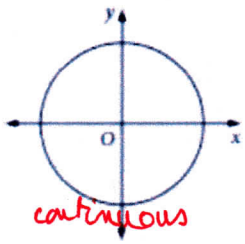
1 Indicate whether each graph is continuous or discontinuous.

(a) 

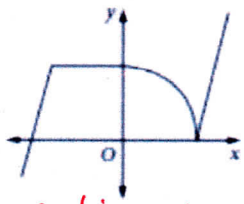
continuous

(b) 

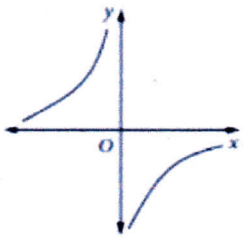
discontinuous over IR

(c) 

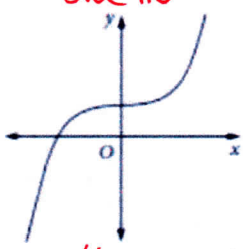
continuous

(d) 

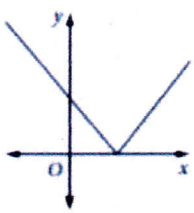
continuous over IR

(e) 

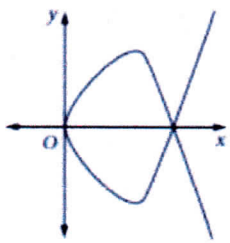
discontinuous over IR

(f) 

continuous over IR

(g) 

continuous over IR

(h) 

continuous.

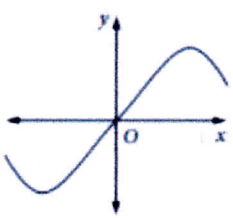
2 In question 1, which curves could be called smooth?

Smooth = a) c) f) h)

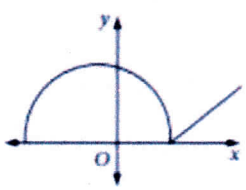
Not smooth = b) d) e) g)

Remember: A discontinuous function cannot be smooth.

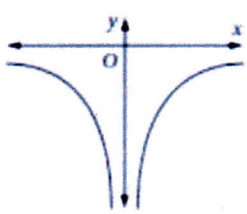
3 Which graph represents a smooth continuous curve?

A 

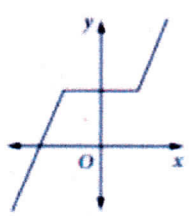
Yes

B 

No

C 

No

D 

No