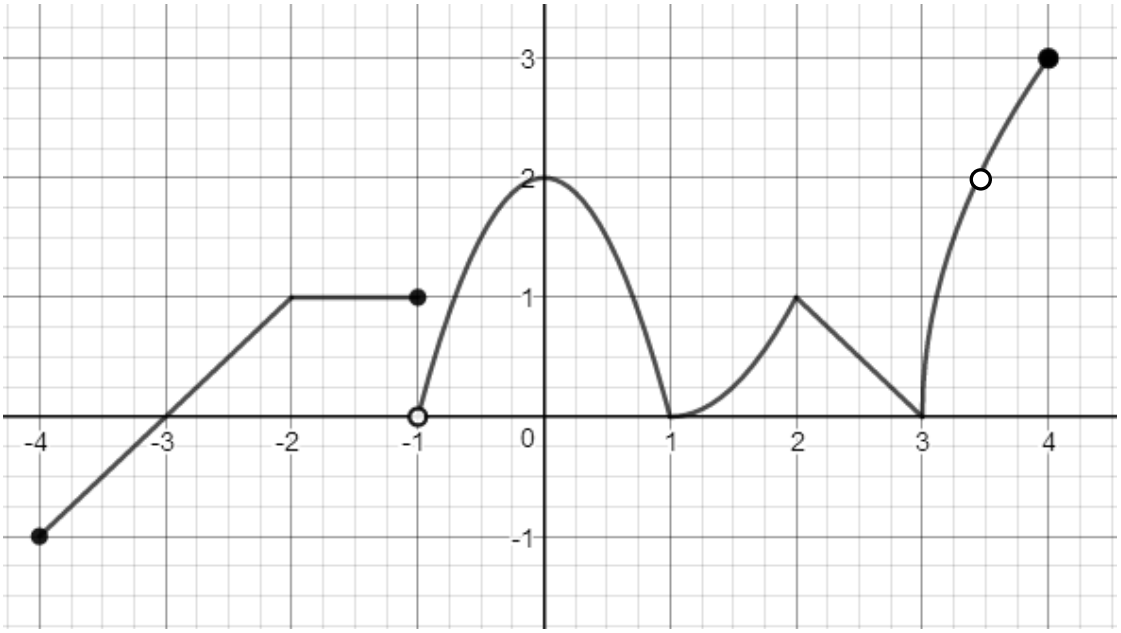
Pre-Calculus

Characteristics of Functions



Using the graph of the above function, $f(x)$ answer the following questions.

1) Evaluate.

a) $f(-4)$ b) $f(-3)$ c) $f(-2)$ d) $f(-1)$ e) $f(0)$

f) $f(1)$ g) $f(2)$ h) $f(3)$ i) $f(4)$ j) $f(3.5)$

2) For what interval(s) is the function positive?

3) For what value(s) of x is $f(x) = 0$?

4) For what interval(s) is the function negative?

5) What are the x-intercepts of the function?

6) What is the y-intercept of the function?

7) For what interval(s) is the function increasing?

8) For what interval is the function decreasing?

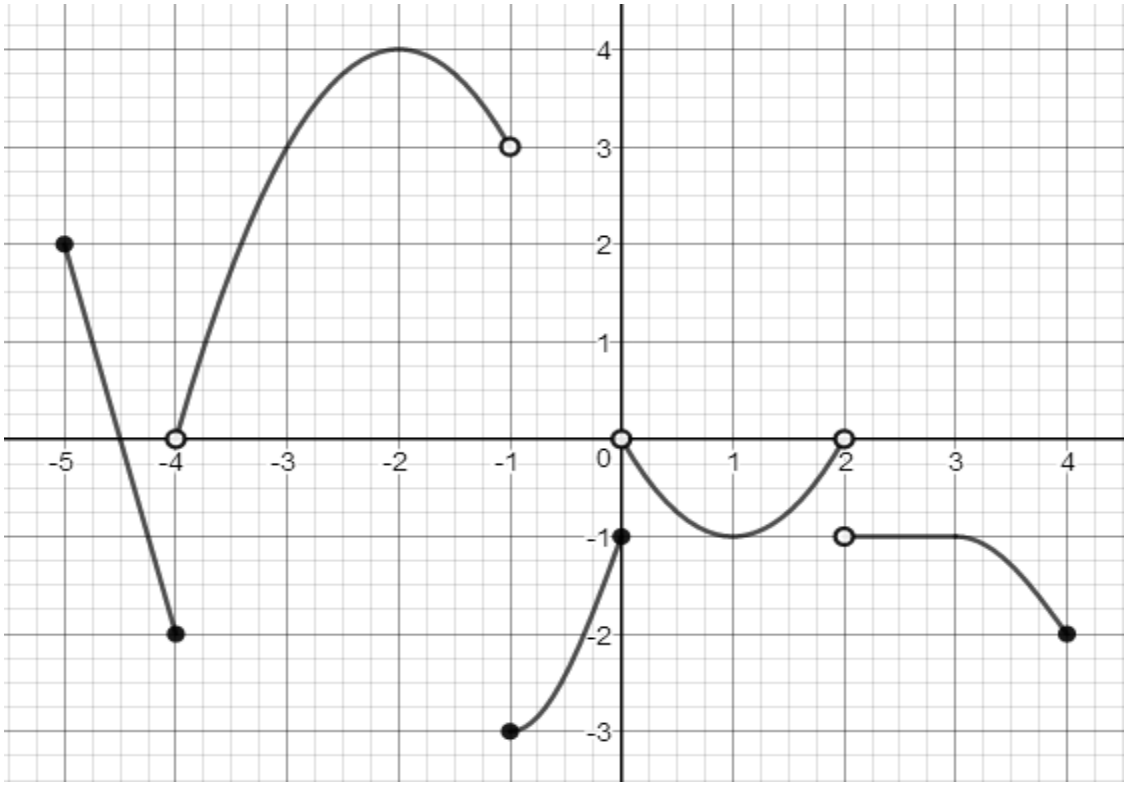
9) For what interval(s) is the function constant?

10) What are the local extrema?

11) What are the absolute extrema?

12) What is the domain?

13) What is the range?



Using the graph of the above function, $g(x)$ answer the following questions.

14) For what interval(s) is $g(x) > 0$?

15) For what interval(s) is $g(x) < 0$?

16) What is the domain?

17) What is the range?

18) What is the x-intercept(s) of the function?

19) What is the y-intercept of the function?

20) For what interval is the function increasing?

21) For what interval is the function decreasing?

22) For what interval is the function constant?

23) What are the relative maximum and minimum?

24) What are the absolute maximum and minimum?

25) Is this function continuous?