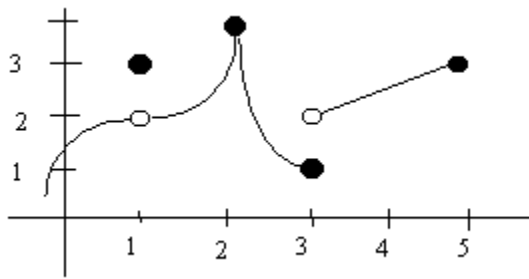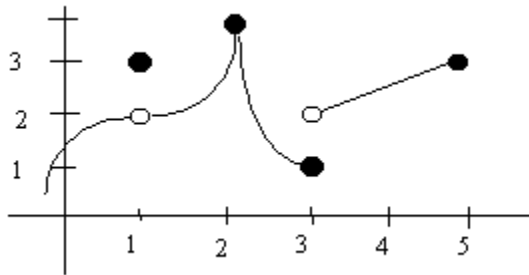**1.** Below is a graph of the function f(x).

Using the definition of continuity, explain if *f* is continuous at $x = 1$.

2. Below is a graph of the function f(x).

Using the definition of continuity, explain if *f* is continuous at $x = 2$.

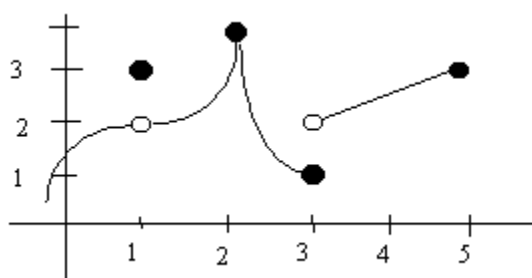**3.** Below is a graph of the function f(x).

Using the definition of continuity, explain if *f* is continuous at $x = 3$.

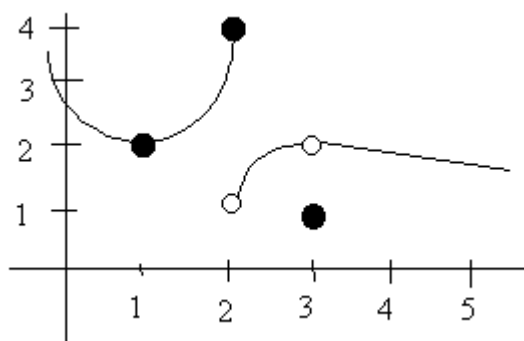**4.** Below is a graph of the function g(x).

Using the definition of continuity, explain if *g* is continuous at $x = 1$.

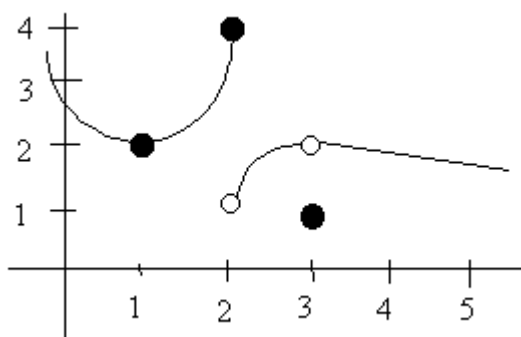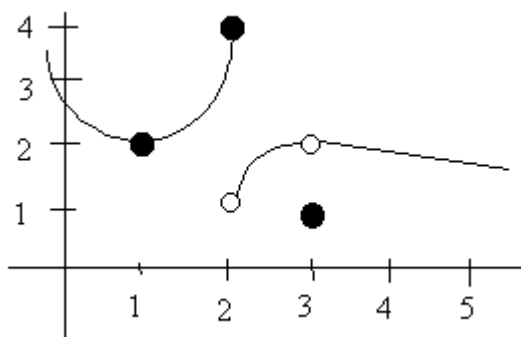**5.** Below is a graph of the function g(x).

Using the definition of continuity, explain if *g* is continuous at *x* = 2.

6. Below is a graph of the function g(x).

Using the definition of continuity, explain if *g* is continuous at *x* = 3.

7. Let *f* be the function defined by

$$f(x) = \begin{cases} \frac{1}{2}x + 1 & x \le 2 \\ 3 - x & x > 2 \end{cases}$$

Is *f* continuous at x = 2? Use the definition of continuity to explain your answer.

8. Let *g* be the function defined by

$$g(x) = \begin{cases} -2x + 3 & x < 1 \\ 5 & x = 1 \\ x^2 & x > 1 \end{cases}$$

Is *g* continuous at x = 1? Use the definition of continuity to explain your answer.