

**Directions:** These are my directions.

1. This problem taken from this source. Consider the function  $y = f(x)$  displayed below. .

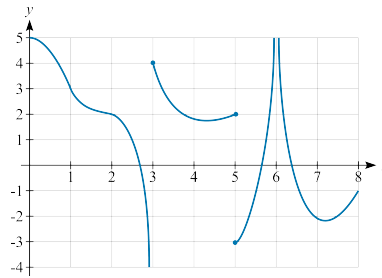


Figure 1: Graph of  $y = f(x)$

- (a) At which value(s) of  $x$  does the function  $f$  have a removable discontinuity? If  $f$  has no removable discontinuities, write "NONE".

(a) \_\_\_\_\_

- (b) At which value(s) of  $x$  does the function  $f$  have a jump discontinuity? If  $f$  has no removable discontinuities, write "NONE".

(b) \_\_\_\_\_

- (c) At which value(s) of  $x$  does the function  $f$  have an infinite discontinuity? If  $f$  has no removable discontinuities, write "NONE".

(c) \_\_\_\_\_

- (d) Fill in the blank with either the word "right" or the word "left". At the point where  $x = 1$ , the function  $f$  is \_\_\_\_\_ continuous.

- (e) Fill in the blank with either the word "right" or the word "left". At the point where  $x = 5$ , the function  $f$  is \_\_\_\_\_ continuous.