1) **Use the graph to the right to answer questions A – S.**

A) Is the graph a function?

B) Domain:

C) Range:

D) $x$-intercept(s):

E) $y$-intercept:

F) Absolute Maximum value:

G) Absolute Minimum value:

For items H – L, State the corresponding $x$-values using Interval Notation.

H) Where is the graph increasing?

I) Where is the graph decreasing?

J) Where is the graph constant?

K) Where is $f(x) \geq 0$?

L) Where is $f(x) < 0$?

M) How many times does the line $y = -3$ intersect the graph?

N) Find $f(2)$

O) Find $f(-3)$

P) Find $f(1)$

Q) Where does $f(x) = 0$? List the corresponding value(s) of $x$.

R) Where does $f(x) = 5$? List the corresponding value(s) of $x$.

S) Find an equation of the piecewise-defined function graphed above:

$$f(x) = \begin{cases} 
\text{for} \\
\text{for} \\
\text{for}
\end{cases}$$