1. Given the graph of, determine the following.



j)  k)  l) 

2. Sketch each piecewise function below and determine, if it exists, the given limit. If the limit does not

exist, provide an explanation.

a) b) c)

3. For each function below, determine, if it exists, the given limit. If the limit does not exist, provide an explanation.

a)  b)  c) 

d)  e) 

4. Rewrite  as a piecewise function and then determine the following limits:

1.  b)  c) 

5. a) What is the possible defining function for the piecewise graph below?

b) i) Does the limit exist as x approaches 0?

ii) Does the limit exist as x approaches 2?



6. The function is defined by where is a constant.

## L2 Solutions

j) = undefined k) = 1 l) = –2







c)

.

3. a)  b)  c) 

d) 

e) 

4. 

5. a) A possible defining equation is

b) i) The limit as approaches does not exist since the limit from the left does not equal the limit from the right.



ii) The limit as approaches equals since the limit from the left equals the limit from the right.



If the limit as approaches does exist, the value of could be calculated.

