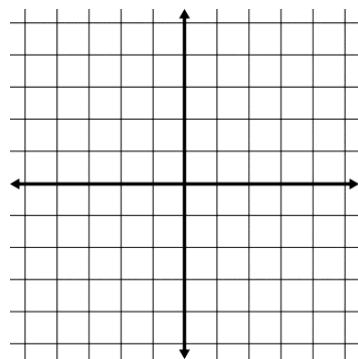
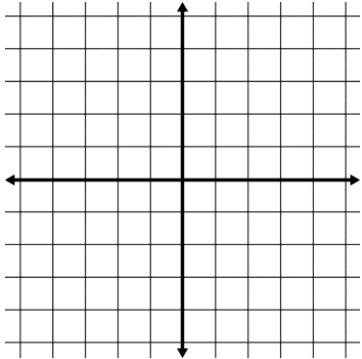


Describe the transformation from the base logarithm then answer questions one and two to help sketch the graph.

$$f(x) = \ln(x+1) - 2$$

$$f(x) = -3\log(2-x) - 1$$



1) Determine the vertical asymptote

1) Determine the vertical asymptote

2) Determine the x-intercept

2) Determine the x-intercept

3) Determine the domain and range

3) Determine the domain and range

4) Intervals of Increase or Decrease

4) Intervals of Increase or Decrease

5) Determine the end behavior

5) Determine the end behavior

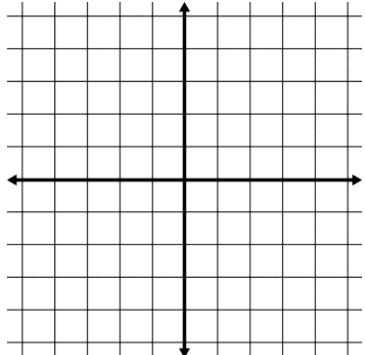
6) Intervals of Concavity

6) Intervals of Concavity

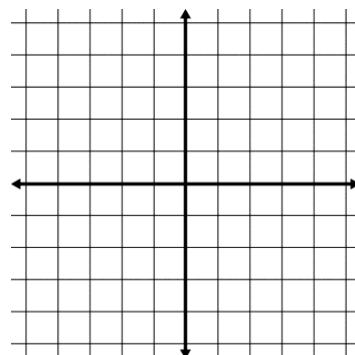
Describe the transformation from the base logarithm then answer questions one and two to help sketch the graph.

$$f(x) = \ln(-x) + 2$$

$$f(x) = \log(4-x)$$



1) Determine the vertical asymptote



1) Determine the vertical asymptote

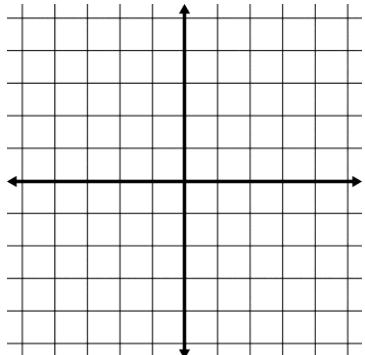
2) Determine the x-intercept

2) Determine the x-intercept

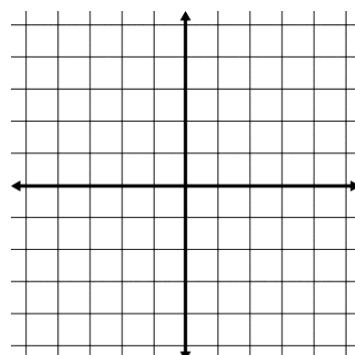
Describe the transformation from the base logarithm then answer questions one and two to help sketch the graph.

$$f(x) = -2\ln(x) - 1$$

$$f(x) = 2\log(x-1) + 2$$



1) Determine the vertical asymptote



1) Determine the vertical asymptote

2) Determine the x-intercept

2) Determine the x-intercept