

List the transformation of the following functions.

1.  $f(x) = \log(x - 1)$

2.  $f(x) = \log(x + 4) - 7$

3.  $g(x) = \ln(x) + 9$

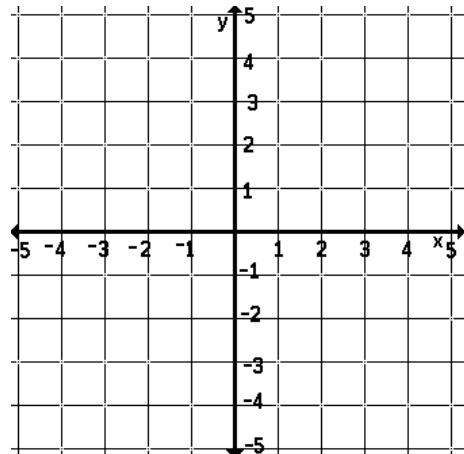
4.  $g(x) = \ln(x + 1) - 3$

Identify the transformations and the asymptote. Then graph the function.

5.  $f(x) = \log(x - 1) - 1$

Transformations:

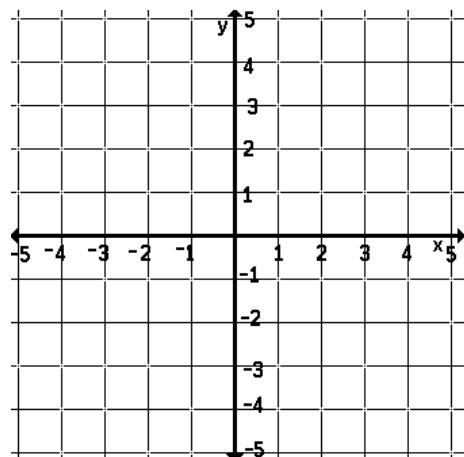
Asymptote:



6.  $f(x) = \log(x + 3) + 1$

Transformations:

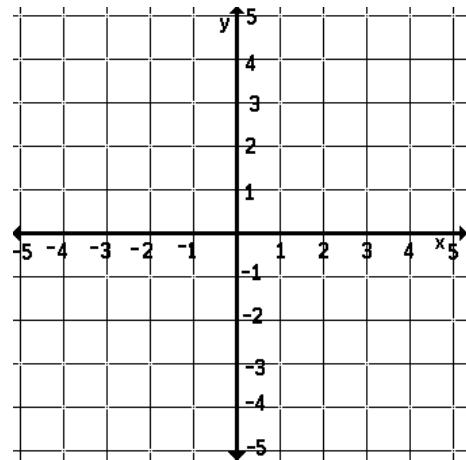
Asymptote:



$$7. f(x) = \ln(x - 4) + 3$$

(4-4a) Transformations:

(4-4c) Asymptote:



$$8. f(x) = \log(x + 2) + 1$$

Transformations:

Asymptote:

