2.11 Logarithmic Functions

AP Precalculus

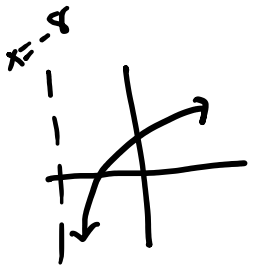
Name: _____

CA #2

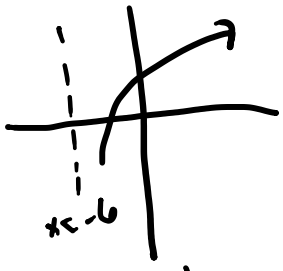
Instructions: Find all relevant information from the given function. Sketch a graph. No calculator.	
1) $f(x) = \ln(x + 8) + 3$ Asymptote: Domain: Range: End Behavior: Graph:	2) $f(x) = -\log_9(x + 6) - 4$ Asymptote: Domain: Range: End Behavior: Graph:
3) $f(x) = \log(4 - x) - 14$ Asymptote: Domain: Range: End Behavior: Graph:	4) $f(x) = -20\log_2(12 - x) + 47$ Asymptote: Domain: Range: End Behavior: Graph:

Answers to 2.11 CA #1

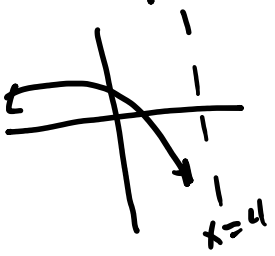
1) A: x = -8
D: $(-8, \infty)$
R: $(-\infty, \infty)$
EB:
$x \to \infty, f(x) \to \infty$
$x \to -8^{+}\ f(x) \to -\infty$



2) A: x = -6
D: $(-6, \infty)$
R: $(-\infty, \infty)$
EB:
$x \to \infty, f(x) \to -\infty$
$x \to -6^{+}, f(x) \to \infty$



3) A: x = 4
D: $(-\infty, 4)$
R: $(-\infty, \infty)$
EB:
$x \to 4^{-}, f(x) \to -\infty$
$x \to -\infty, f(x) \to \infty$



4) A: x = 12
D: $(-\infty, 12)$
R: $(-\infty, \infty)$
EB:
$x \to 12^{-}, f(x) \to \infty$
$x \to -\infty, f(x) \to -\infty$