2.11 Logarithmic Functions

AP Precalculus

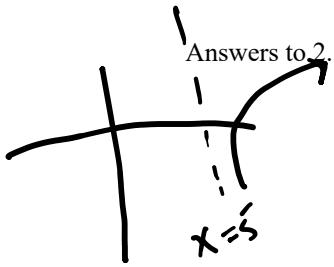
Name: _____

CA #1

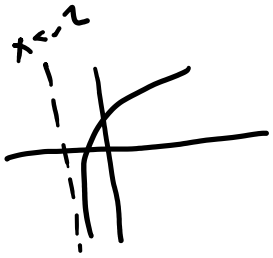
Instructions: Find all relevant information from the given function. Sketch a graph. No calculator.	
1) $f(x) = \ln(x-5) - 2$ Asymptote: Domain: Range: End Behavior: Graph:	2) $f(x) = -5\ log_6(x+2) - 9$ Asymptote: Domain: Range: End Behavior: Graph:
3) $f(x) = \log(7-x) + 4$ Asymptote: Domain: Range: End Behavior: Graph:	4) $f(x) = -2\ log_2(2-x) + 4$ Asymptote: Domain: Range: End Behavior: Graph:

Answers to 2.11 CA #1

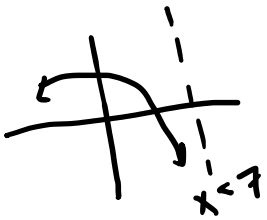
1) A: x = 5
D: $(5, \infty)$
R: $(-\infty, \infty)$
EB:
$x \to \infty, f(x) \to \infty$
$x \to 5^+ \; f(x) \to -\infty$



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



3) A: x = 7
D: $(-\infty, 7)$
R: $(-\infty, \infty)$
EB:
$x \to 7^-, f(x) \to -\infty$
$x \to -\infty, f(x) \to \infty$



4) A: x = 2
D: $(-\infty, 2)$
R: $(-\infty, \infty)$
EB:
$x \to 2^-, f(x) \to \infty$
$x \to -\infty, f(x) \to -\infty$