

Math Worksheet: Graphs of Functions(1)

Given function

$$f(x) = \left(\frac{1}{3}\right)^x + 2$$

1. Find the domain and range of
- f

domain: $(-\infty, +\infty)$; Range: $(2, +\infty)$

2. Find the horizontal asymptote of the graph of
- f
- .

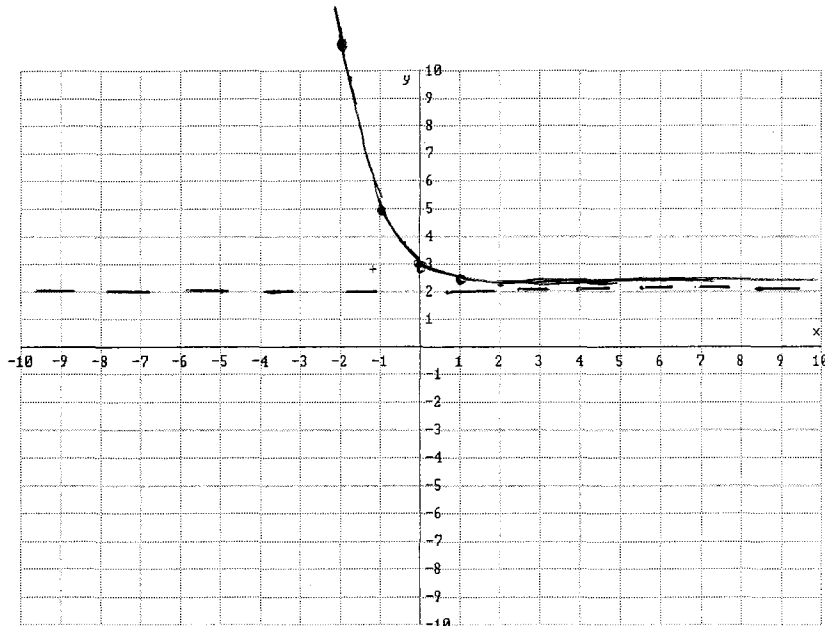
$$y = 2$$

3. Find the y-intercept and x intercept, if any, of the graph of
- f
- .

y-intercept: $(0, 3)$; No x-intercept.

4. Sketch the graph of
- f
- .

x	$f(x)$
-2	11
-1	5
0	3
1	2.3
2	2.1



H. Asymptote
 $y = 2$.