

QUESTIONS

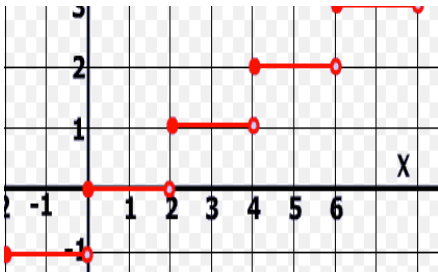
Ex 1: What is the range of the following function?

$$f(x) = \frac{1}{3} \left[\frac{51}{7} (x - 12) \right] + 7$$

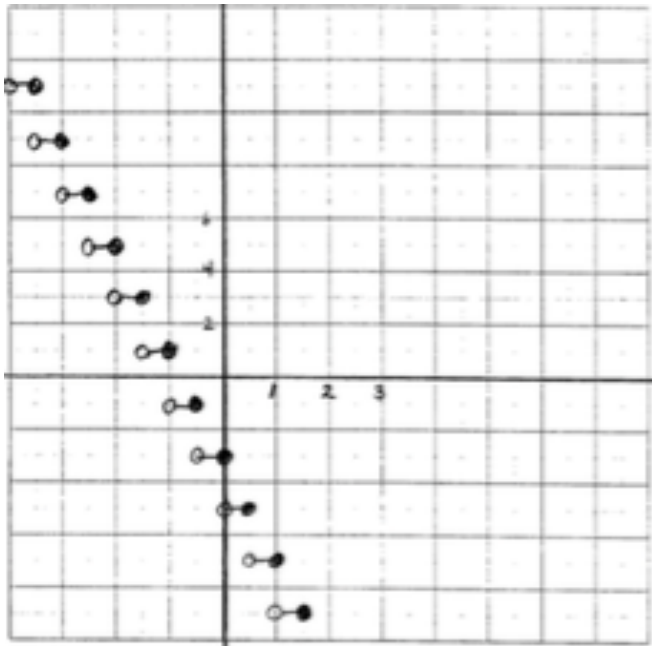
Ex 2: Graph the following function:

$$f(x) = 4 \left[\frac{4x+9}{6} \right] - 1$$

Ex 3: Determine the rule of the function:



Ex 4: Find the rule of the following function:



Scale on x-axis: each square = 1, on y-axis: 2

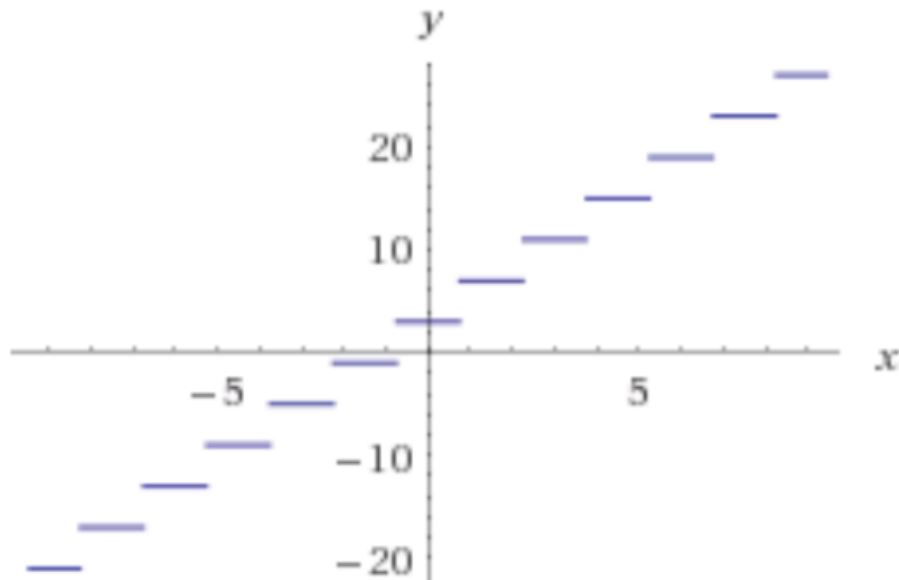
Ex 5: Mr. Pemberton's cell phone plan includes 1 GB (1000MB) for free, and then charges \$5 for each additional 250MB.

- a) Find the rule of the greatest integer function that represents cost with respect to data usage.
- b) Graph the function (use a relevant scale)
- c) How much will it cost Mr.P if he uses 1510 MB?
- d) If he gets a bill for \$42, should he pay it?

ANSWERS

1) $\{y \mid y = 1/3 n, n \text{ is an integer}\}$

2)



Height = 4
Length = $3/2$ or 1.5

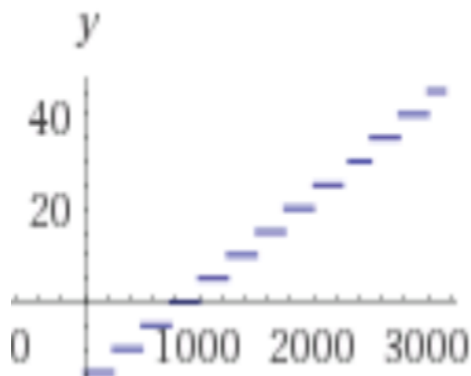
Vertex = (-3, -1)
Open on right

3) $f(x) = \lfloor \frac{x}{2} \rfloor$

4) $f(x) = 2[-2x] - 3$

5) a) $f(x) = -5[-\frac{1}{250}(x - 1000)]$

b)



Open on left.

c) $f(x) = -5[-\frac{1}{250}(1510 - 1000)]$

$f(x) = -5[-\frac{1}{250}(510)]$

$f(x) = -5[-(2.04)]$

$f(x) = -5(-3)$

$f(x) = 15$

d) No. There is no x-value that will result in a y-value of 42.