## A1

$$f(x) = \begin{cases} -2x - 2, & -5 < x < 0 \\ -2, & x \geq 0 \end{cases}$$
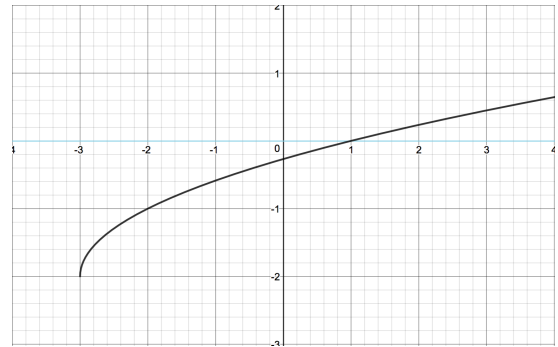
## A2

The function increases at a constant rate of $\frac{a}{b}$ and the y-intercept is $(0, c)$

## A3

Each input value, x, is squared and then 3 is added to the result. The domain of the function is $[0, \infty)$

## A4



## A5

| x | y |
|---|---|
| -2 | -3 |
| 2 | 3 |
| 0 | 0 |
| 6 | 5 |
| 4 | 4 |
| $-\frac{4}{3}$ | -2 |

## A6

$$y = 3^x$$

## A7

| x | y |
|---|---|
| -5 | -125 |
| -3 | -27 |
| -1 | -1 |
| 1 | 1 |
| 3 | 27 |
| 5 | 125 |

## A8
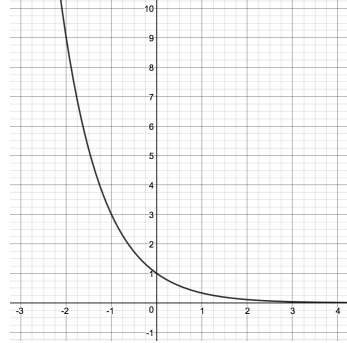


## A9
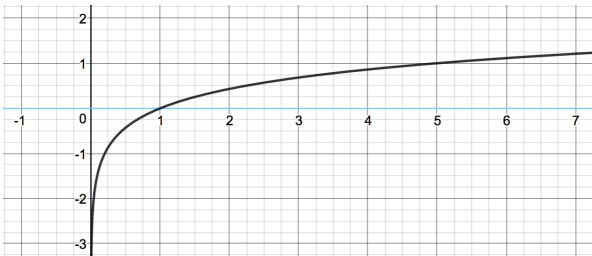


## A10

Yasmin started a savings account with $5. At the end of each week, she added $3. This function models the amount of money in the account for a given week.

## B1

$$y = \log_3 x$$

## B2

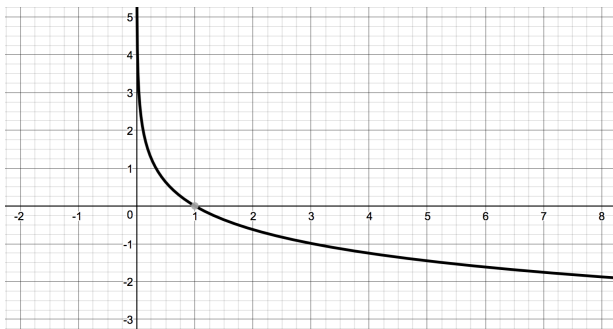$$f(x) = \begin{cases} \dfrac{2}{3}x, & -3 < x < 3 \\ 2x - 4, & x \geq 3 \end{cases}$$

## B3

The x-intercept is $(c, 0)$ and the slope of the line is $\frac{b}{a}$.

## B4

| x | y |
|---|---|
| -216 | -6 |
| -64 | -4 |
| -8 | -2 |
| 0 | 0 |
| 8 | 2 |
| 64 | 4 |
| 216 | 6 |

## B5



## B6

| x | y |
|---|---|
| 3 | 0 |
| 4 | 1 |
| 7 | 2 |
| 12 | 3 |
| 19 | 4 |
| 28 | 5 |
| 39 | 6 |

## B7
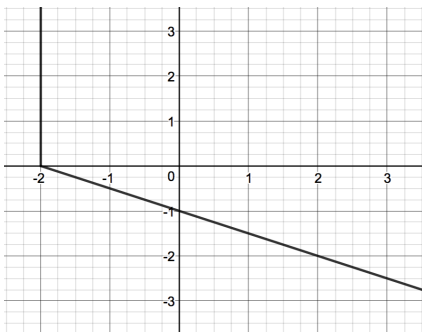


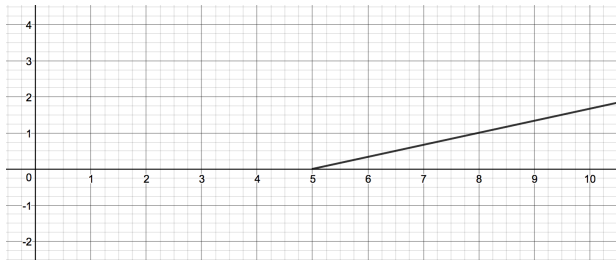## B8

| x | y |
|---|---|
| -2 | -3 |
| -1 | -2 |
| 0 | 1 |
| 1 | 6 |
| 2 | 13 |

## B9



## B10

The function is continuous and grows by an equal factor of 5 over equal intervals.
The y-intercept is $(0, 1)$