

## Exercise 60

Graph the linear function  $f$  on a domain of  $[-10, 10]$  for the function whose slope is 18 and  $y$ -intercept is  $\frac{31}{16}$ . Label the points for the input values of  $-10$  and  $10$ .

### Solution

The equation of the linear function with slope 18 and  $y$ -intercept  $\frac{31}{16}$  is

$$y = 18x + \frac{31}{16}.$$

If the input is  $x = -10$ , then the output is

$$y = 18(-10) + \frac{31}{16} = -\frac{2849}{16} \approx -178.$$

If the input is  $x = 10$ , then the output is

$$y = 18(10) + \frac{31}{16} = \frac{2911}{16} \approx 182.$$

The function is plotted below versus  $x$  on the domain  $[-10, 10]$ .

