Section 3.7 Graphing Linear Functions

# Objective 1: Graphing Linear Functions

We know from the previous section, that all linear equations are functions except those of the form , which are vertical lines. In general, a **linear function** is a function that can be written in the form .

a. Graph the linear functions and on the same axes.

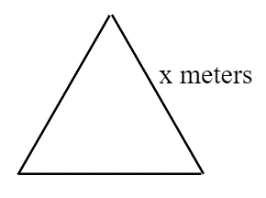


b. Graph the linear function by finding the - and -intercepts.



# Objective 2: Deciding Whether a Situation is a Linear Function

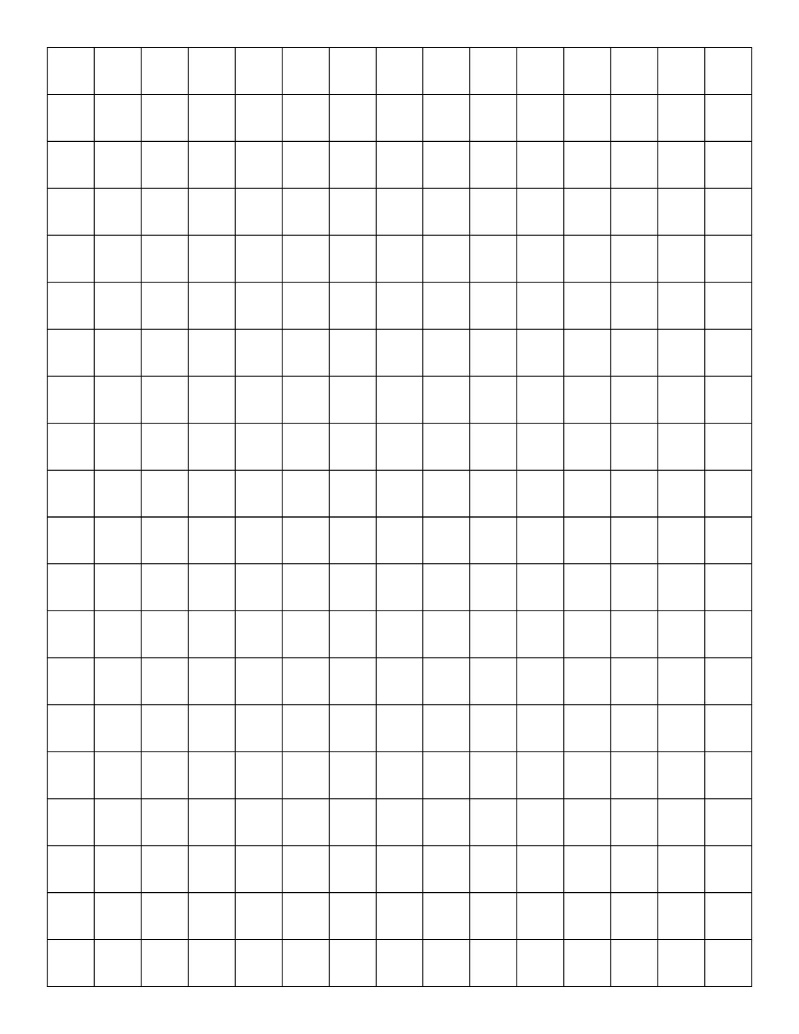
To find the perimeter, , of a regular triangle given its side length , multiply by .



a. Complete the table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Side length, (in meters) |  |  |  |  |  |
| Perimeter of triangle,  (in meters) |  |  |  |  |  |

b. Graph the data from part a.



c. Is this situation described by a linear function?