

At the country fair, Mischa sells hot dogs for \$3 each, and drinks for \$2 each. A meal consists of hot dogs and one drink.

TABLE OF VALUES

# of hot dogs	cost
h	$3h + 2$
1	5
2	8
3	11
4	14
5	17
6	20
7	23
8	26
9	29
10	32
11	35

How can you use the table of values to find:

- the cost of a meal when a person orders 9 hot dogs? **\$29**
- the number of hot dogs ordered when a meal costs \$35? **11**

When you make a table of values theres always two lists

One of the lists is INDEPENDENT and the other list is DEPENDENT

INDEPENDENT: time is always independent, its the thing that happens on its own

DEPENDENT: depends on the other thing

(have to know something else)

↳ it happens first

Example

A tree grows 20 cm every year, so the height of the tree is related to its age

$h=20a$

H is dependent

A is independent

THE HEIGHT OF THE TREE DEPENDS ON HOW OLD IT IS

Table of Value

Coordinates

Graph

Practice Worksheets

For graphing independent always goes on x which is flat across and dependent always goes on y which is up/down

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$x = \text{independent}$
 $y = \text{dependent}$

Example 1

Saskatoon Pizza charges \$11 for a medium cheese pizza, plus \$2 for each topping. An equation for this relation is $c = 11 + 2n$, where n represents the number of toppings and c represents the cost of the pizza in dollars.

Table of Values

n	c

Use the equation to find the cost of a pizza with 5 toppings.
Check the answer.

Use the equation to find how many toppings are on a pizza that costs \$27.

TABLE OF VALUES CAN ALSO BE WRITTEN AS ORDERED PAIRS
(x,y) is always the order or (independent, dependent)

Example 2

The equation of a linear relation is: $y = -5x - 3$

Some ordered pairs in the relation are:

$(0, -3), (1, -8), (2, -13), (3, \quad), (4, -23), (\quad, -28)$

Find the missing numbers in the ordered pairs.

↓
coordinates

ex.

x	y
1	4
2	8
3	12

→ (1, 4)
→ (2, 8)
→ (3, 12)