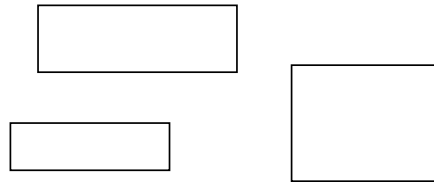


5.6 Properties of Linear Relations

Make Connections: pg. 300



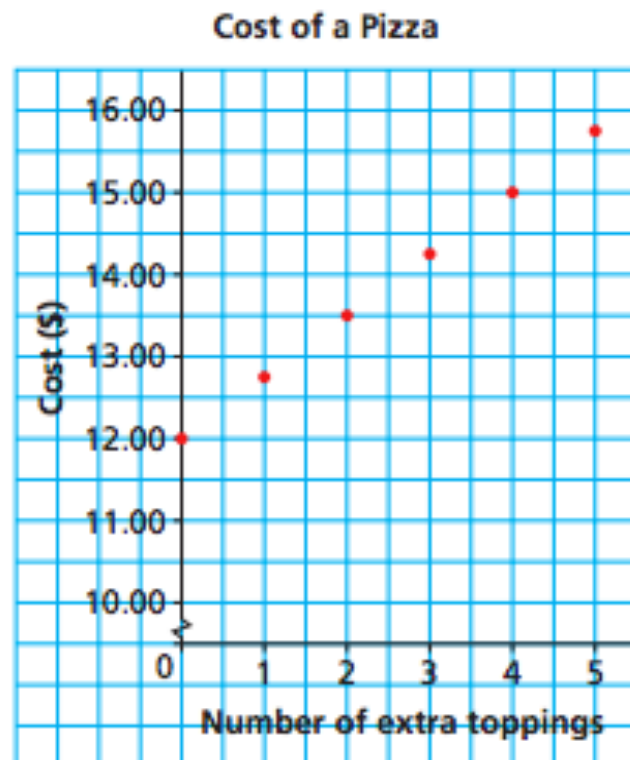
These three concepts represent the definition of all the points of a relation

* The graphical representation of a linear relation is a

* In a table of values, if the changes in x-values are the changes in y-values will also be

x	y
0	8
2	7
4	6

* Linear relations have a



rate of change =

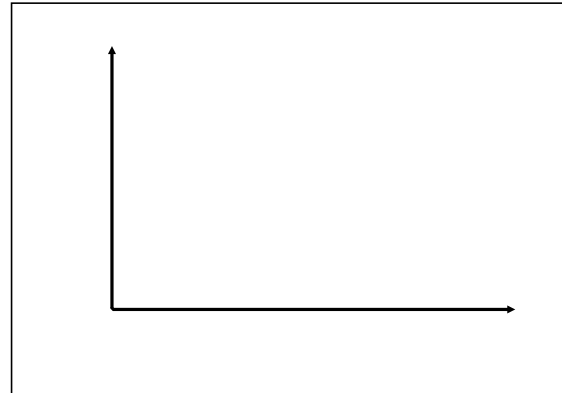
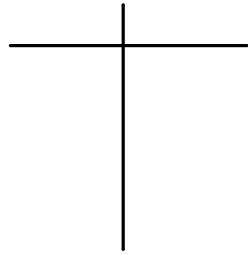
m =

=

In this case...

m =

ex. The cost for a car rental is \$60 plus \$20 for every 100 km driven. Identify that this is a linear relation with a table of values, a set of ordered pairs, a graph and an equation.



ex. Represent graphically the following:

a) $f(x) = x^2 + 2$

b) $g(x) = -2x - 1$

c) $h(x) = 3$

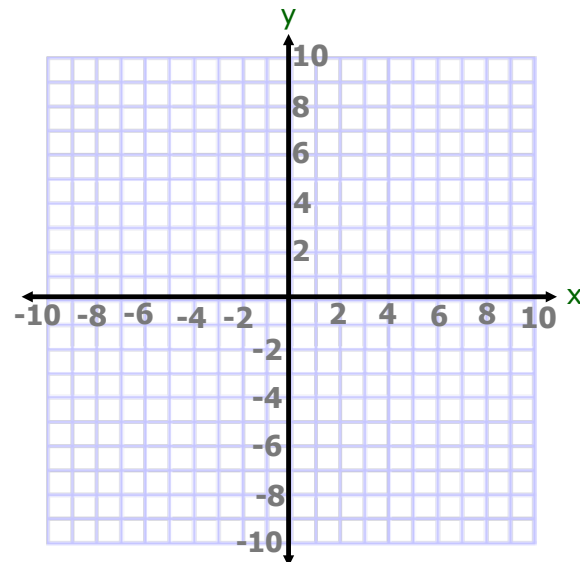
d) $x = 2$

x	y

x	y

x	y

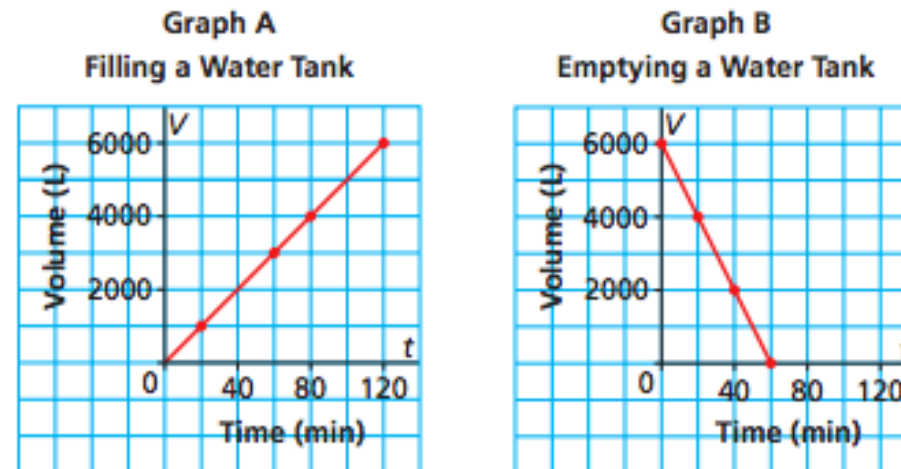
x	y



A water tank on a farm near Swift Current, Saskatchewan, holds 6000 L.

Graph A represents the tank being filled at a constant rate.

Graph B represents the tank being emptied at a constant rate.



- a) Identify the independent and dependent variables.
- b) Determine the rate of change of each relation, then describe what it represents.