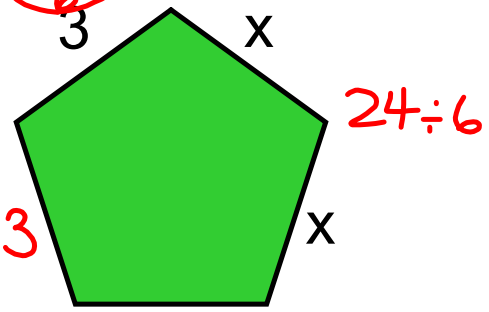
1) 3m + 1, m=3

2) 1/6 of 24 =

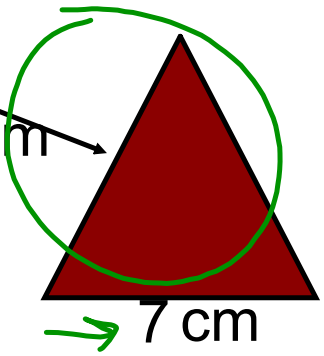
3) (-6) + (+6)=

4) Find the x, perimeter = 25



5) What is the mode of the data: 5,6,2,5,6,13,14

6) Find the height of the triangle:



7) 22 X 20 =

8) 2 less than a number doubled

Jerome baked some cookies.
He shared them among his eight friends.
Each friend had 4 cookies.
Write, then solve, an equation to find how many cookies Jerome baked.

$\frac{n}{8} = 4 \times 8$

$n = 32$

$\frac{32}{8} = 4$

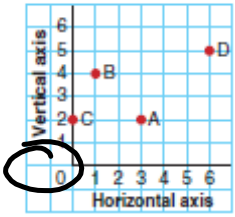
$4 = 4$

8.5 Graphing on a Coordinate Grid

Focus Identify and plot points in four quadrants of a coordinate grid.

(3, 2)

You have plotted points with whole-number coordinates on a grid.
Point A has coordinates (3, 2).
What are the coordinates of point B? Point C? Point D?



A vertical number line and a horizontal number line intersect at right angles at 0.
This produces a grid on which you can plot points with integer coordinates.

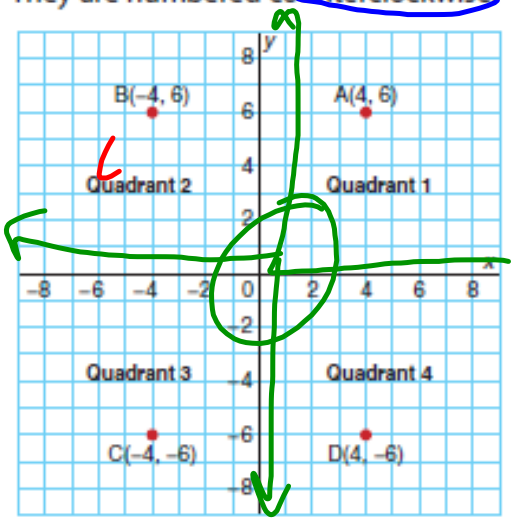
− , +

Math Link

History
René Descartes lived in the 17th century.
He developed the coordinate grid.
It is named the Cartesian plane in his honour.
There is a story that René was lying in bed and watching a fly on the ceiling.
He invented coordinates as a way to describe the fly's position.

Connect

A vertical number line and a horizontal number line that intersect at right angles at 0 form a **coordinate grid**.
The horizontal axis is the ***x*-axis**.
The vertical axis is the ***y*-axis**.
The axes meet at the **origin** (0, 0).
The axes divide the plane into four **quadrants**.
They are numbered counterclockwise.



This coordinate grid is also called a *Cartesian plane*.

We do not need arrows on the axes.

A pair of coordinates is called an *ordered pair*.

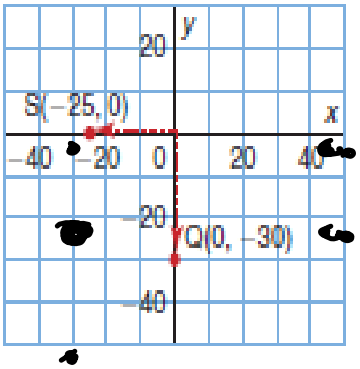
We do not have to include a + sign for a positive coordinate.

A Solution

a) Start at the origin each time.

i) To get to Q, move 0 units right and 30 units down.
So, the coordinates of Q are (0, −30).

ii) To get to S, move 25 units left and 0 units down.
So, the coordinates of S are (−25, 0).



Remember, first move left or right, then up or down.

Point S is halfway between −20 and −30 on the *x*-axis.

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