Braindump

by me

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Warning: These are completely random notes, written in a probably unhelpful way.

Contents

1 Triangle inequality theorem

The triangle inequality theorem states:
The lenght of any side must be smaller than the sum of the other two sides.

2 Divisibility by 4

A number is divisible by 4 if the last two digits form a number that is divisible by 4.

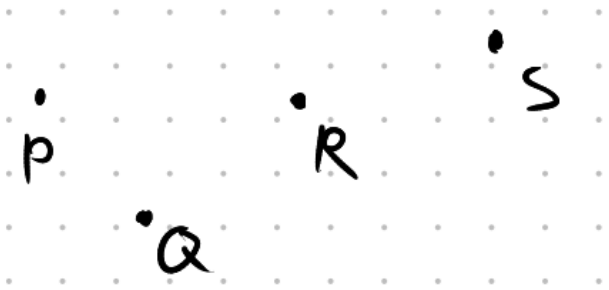
3 Find an equation that passes through two points

Linear Function Equation: $y = mx + b$
where m is the slope and b is the y-intercept
$m = \frac{y_2 - y_1}{x_2 - x_1}$
Basically just put the points in the equation.
TODO:fix section

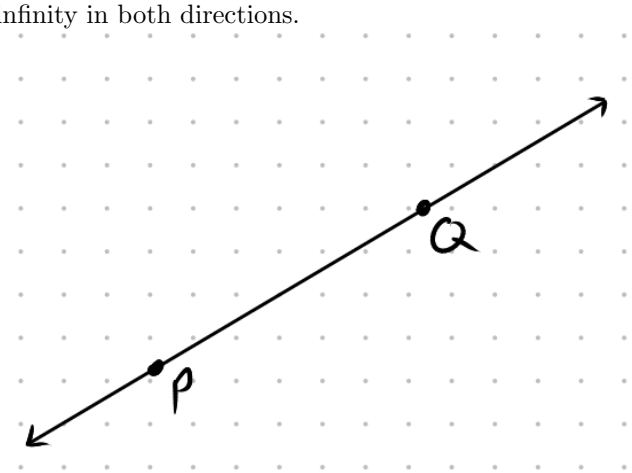
4 Fundamental geometric objects

4.1 Points

Point: Exact location in space, has no size (no length,widht, depth), only position. A point is indicated with a dot usually labled with a capital letter (P,Q,S,..)

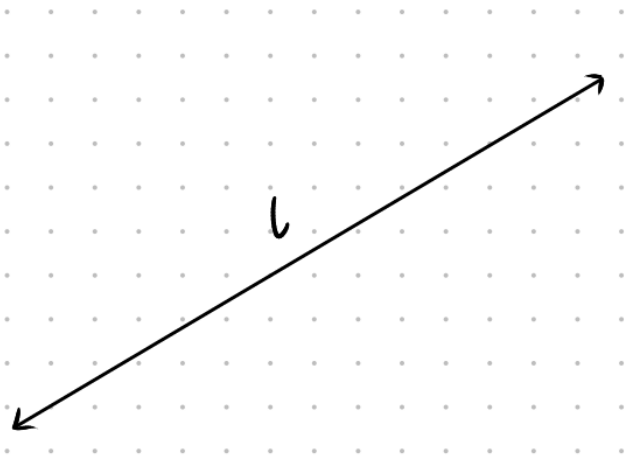


A line is a straight object that is infinitly long and has no width. Like an infinite collection of point, going to infinity in both directions.



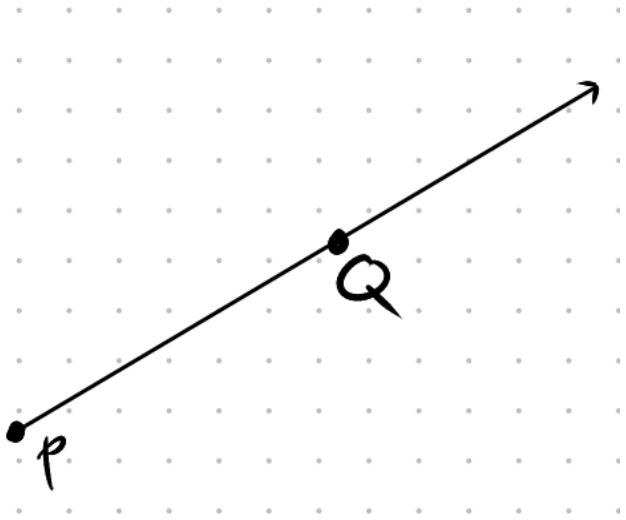
4.2 Lines

This line that passes through the points P and Q is written like so:
$\overleftrightarrow{PQ}$
Lines can also be denoted like so with lowercase letters:



4.3 Rays

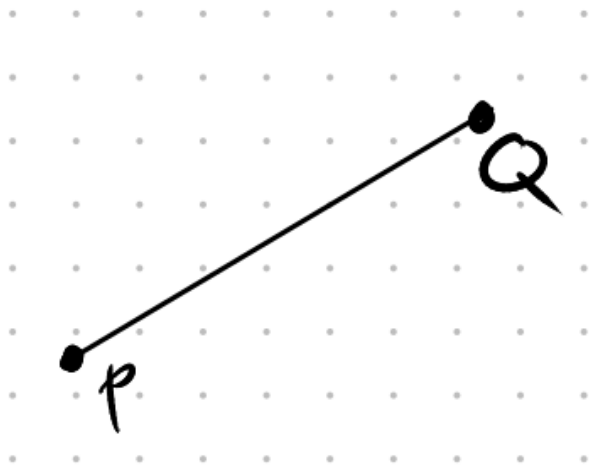
These are similar to a line but they have a starting point and only extend infinitely in one direction.
Example:



A ray that starts at point P and passes through a point Q is expressed as $\overrightarrow{PQ}$

The arrows tail in the expression is above the starting point.

5 Segment



Like a line but with start and end points, it does not extend infinitely.

A segment with Endpoints P and Q is denoted as $\overline{PQ}$