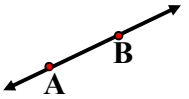
1.2

MEASURING SEGMENTS

REVIEW

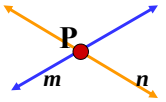
Postulate 1

Through any _____ there is exactly _____.



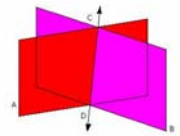
Postulate 2

If two distinct lines _____, then they intersect in exactly _____.



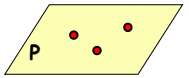
Postulate 3

If two distinct planes _____, then they intersect in exactly _____ .



Postulate 4

Through any three _____ , there is exactly _____.



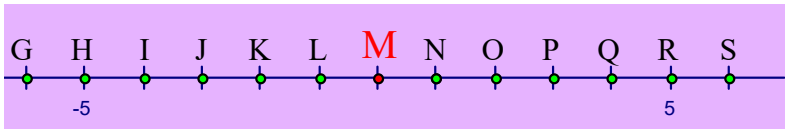
Ruler Postulate

- Every point on a _____.
- The real numbers that corresponds to a point is called _____ .
- The _____ between any two points on a number line is the _____ of the _____ of the real numbers corresponding to the points.

Formula: Take the _____of the two coordinates a and b:

Ruler Postulate : Example

Find the distance between *P* and *K*.



Therefore, the coordinates of points ***P*** and ***K*** are and respectively.

Substituting the coordinates in the formula

$PK =$

Remember : Distance is always positive

DEFINITIONS

Bisect –

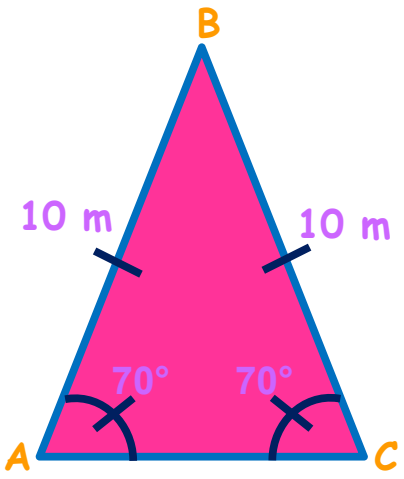
Congruent –

Congruent vs. Equal

$\cong$ $=$

Foot Example

Example



$\overline{AB} \cong \overline{CB}$

$\angle CAB \cong \angle ACB$

$AB = 10$ m

$CB = 10$ m

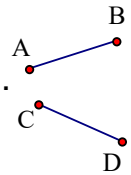
$m\angle CAB = 70°$

$m\angle ACB = 70°$

Congruent Segments

Definition: _____.

(congruent symbol:)



Congruent segments can be marked with _____ .

If numbers are _____ the objects are _____.

$\overline{AB}$: the segment AB (an object)

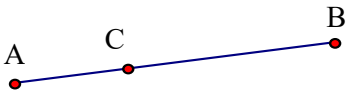
AB: the distance from A to B (a number)

Correct notation: $AB = CD$ $\overline{AB} \cong \overline{CD}$

Incorrect notation: $AB \cong CD$ $\overline{AB} = \overline{CD}$

Segment Addition Postulate

Example: **If AC = *x* , CB = 2*x* and AB = 12, then, find *x*, AC and CB.**



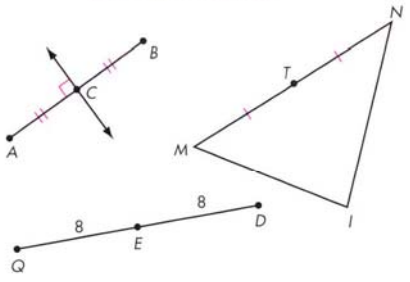
Defining...

Example B

Study the information, then identify which creatures in the last group are Orks.

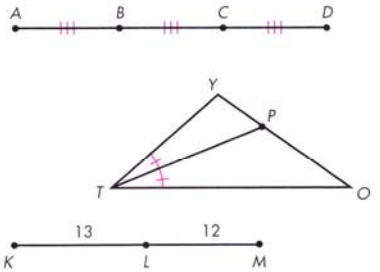
4. Define *midpoint of a segment.*

Midpoints of segments



Point *C* is a midpoint of segment *AB*.
Point *T* is a midpoint of segment *MN*.
Point *E* is a midpoint of segment *QD*.

Not midpoints of segments



Points *B* and *C* are not midpoints of segment *AD*.
Point *P* is not a midpoint of segment *OY*.
Point *L* is not a midpoint of segment *KM*.