

MATHS

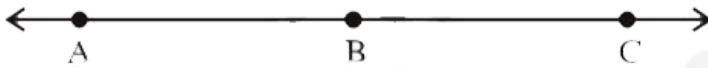
NCERT - NCERT Maths(Telugu)

THE ELEMENTS OF GEOMETRY

Examples

1. If A,B,|C are three points on a line and B lies between A and C, then prove that $AC-AB = BC$

$AB = BC$



In the figure, AC coincides with $AB + BC$



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2. Prove that an equilateral triangle can be constructed on any given line segment.



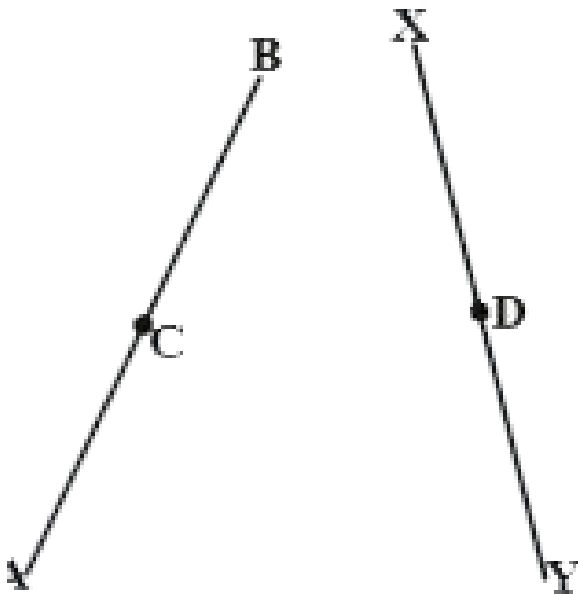
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3. Two distinct lines cannot have more than one point in common.



4. In the adjacent figure, we have $AC = XD$, C and D are mid points of AB and XY respectively.

Show that $AB = XY$.



Try This

1. Can you give any two axioms from your daily life.



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Exercise 3 1

1. Answer the following:

(i) How many dimensions a solid has?

(ii) How many books are there in Euclid's Elements?

(iii) Write the numbers of faces of a cube and cuboid?

(iv) What is sum of interior angles of a triangle?

(v) Write three un-defined terms of geometry?



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2. In the figure given below, show that length

$$AH > AB + BC + CD.$$



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3. If a point Q lies between two points P and R such that $PQ = QR$, prove that $PQ = \frac{1}{2}PR$.



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4. Draw an equilateral triangle whose sides are 5.2 cm. each



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5. What is a conjecture ? Give an example for it.



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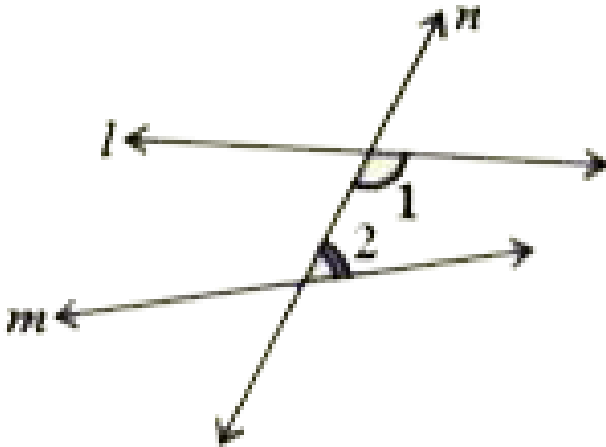
6. Mark two points P and Q. Draw a line through P and Q.

Now how many lines are parallel to PQ, can you draw?



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7. In the adjacent figure, a line n falls on lines l and m such that the sum of the interior angles 1 and 2 is less than 180° , then what can you say about lines l and m .



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8. List the adjacent angles in the given figure.

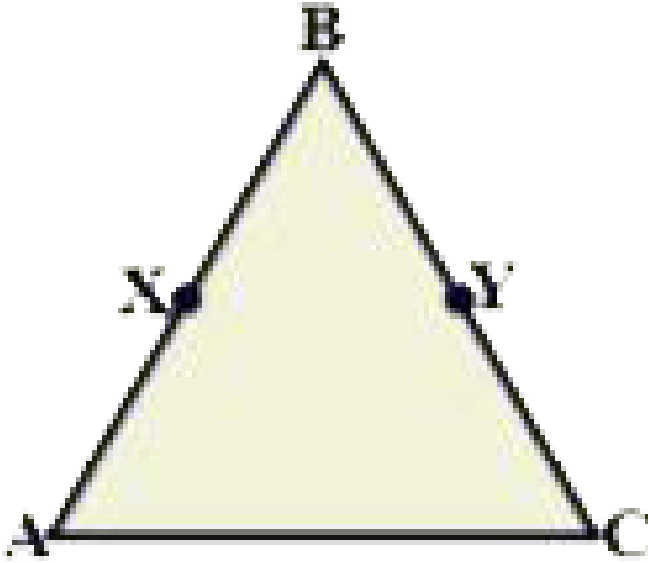


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9. In the adjacent figure, we have

$BX = \frac{1}{2}AB$, $BY = \frac{1}{2}BC$ and $AB=BC$. Show

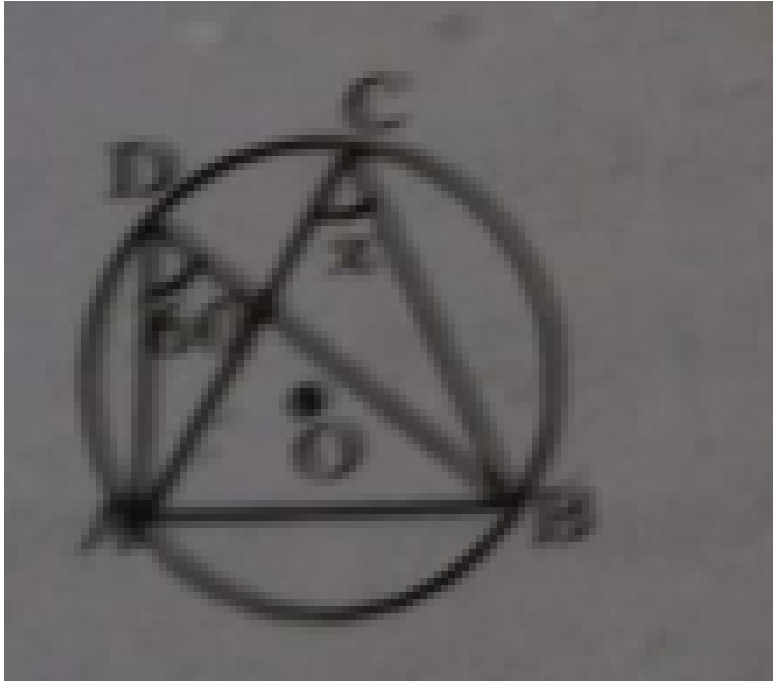
that $BX = BY$.



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Brain Teaser

1. In the figure $x = \dots\dots\dots$



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2. Diagonal of a cube is units.





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