



# MATHS

## BOOKS - NCERT MATHS (HINGLISH)

### CONSTRUCTIONS

#### Constructions

1. With the help of a ruler and a compass it is not possible to construct an angle of

A.  $37.5^\circ$

B.  $40^\circ$

C.  $22.5^\circ$

D.  $67.5^\circ$

**Answer: B**



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2. The construction of  $\triangle ABC$  , given that  $BC = 6\text{cm}$ ,  $\angle B = 45^\circ$  is not possible when difference of  $AB$  and  $AC$  is equal to

A.  $6.9\text{ cm}$

B. 5.2 cm

C. 5.0cm

D. 4.0 cm

**Answer: A**



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3. The constuction of a  $\triangle ABC$ , given that  $BC = 3\text{cm}$ ,  $\angle C = 60^\circ$  is possible when difference of  $AB$  and  $AC$  is equal to

A. 3.2cm

B. 3.1cm

C. 3cm

D. 2.8 cm

**Answer: D**



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**4. State true or false.**

An angle of  $52.5^\circ$  can be constructed by compass

A. true

B. false

C. may or may not be

D. none of these

**Answer: A**



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**5. state true or false**

An angle of  $42.5^\circ$  can be constructed.



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6. State True or False

triangle ABC can be constructed in which  $AB = 5\text{cm}$ ,  $\angle A = 45^\circ$  and  $BC + AC = 5\text{cm}$ .

A. true

B. false

C. may or may not be

D. none of these

**Answer: B**



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## 7. State True or False

$\triangle ABC$  can be constructed in which  $BC = 6\text{cm}$ ,  $\angle C = 30^\circ$  and  $AC - AB = 4\text{cm}$ .

A. true

B. false

C. may or may not be

D. none of these

**Answer: A**



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8. state true or false

A  $\triangle ABC$  can be constructed in which  $\angle B = 105^\circ$ ,  $\angle C = 90^\circ$  and  $AB + BC + CA = 10cm$ .



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9. State True of False

A  $\triangle ABC$  can be constructed in which  $\angle B = 60^\circ$ ,  $\angle C = 45^\circ$  and  $AB + BC + CA = 12cm$ .

A. true



B. false

C. may or may not

D. none of these

**Answer: A**



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## Short Answer Type Questions

1. Draw an angle of  $110^\circ$  with the help of a protractor and bisect it. Measure each angle.



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2. Draw a line segment  $AB$  of  $4\text{cm}$  in length . Draw a line perpendicular to  $AB$  through  $A$  and  $B$ , respectively. Are these lines parallel?



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3. Draw an angle of  $80^\circ$  with the help of protractor .

Then, construct angles of

(i)  $40^\circ$  (ii)  $160^\circ$  and (iii)  $120^\circ$  .



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4. Construct a triangle whose sides are 3.6 cm , 3.0cm and 4.8cm. Bisect the smallest angle and measure each part.



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5. Construct a  $\triangle ABC$  in which  $BC = 5cm$ ,  $\angle B = 60^\circ$  and  $AC + AB = 7.5cm$ .



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6. Construct a square of side 3cm.



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7. Construct a rectangle whose adjacent sides are of lengths  $5\text{cm}$  and  $3.5\text{cm}$  .



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8. Construct a rhombus whose side is of length  $3.4\text{cm}$  and one of its angles is  $45^\circ$  .



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Long Answer Type Questions

1. A triangle if its perimeter is  $10.4\text{cm}$  and two angles are  $45^\circ$  and  $120^\circ$ .



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2. A  $\triangle PQR$ , given that  $QR = 3\text{cm}$ ,  $\angle PQR = 45^\circ$  and  $QP - PR = 2\text{cm}$ .



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3. A right triangle when one side is  $3.5\text{cm}$  and sum of other sides and the hypotenuse is  $5.5\text{cm}$ .



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4. An equilateral triangle, if its altitude is  $3.2\text{cm}$



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5. A rhombus whose diagonals are  $4\text{cm}$  and  $6\text{cm}$  in lengths.



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