

## **MATHS**

## BOOKS - CHETANA MATHS (MARATHI ENGLISH)

## **TRIANGLES**

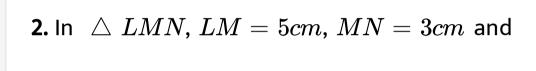
Example

**1.** In  $\ \bigtriangleup \ PQR, \angle Q = 90^{\circ}$  and segment QM is

median on hypotenuse PR. If QM =3.3 units,

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Find l(PR).



LN=4cm. Find biggest and smallest angle.



**3.** If  $\triangle PQR \sim \triangle XYZ$ , then write ratios of corresponding sides.



**4.** In  $\triangle ABC$ ,  $\angle A=70^\circ$ ,  $\angle B=40^\circ$ . Side BC is extended to point D. Find  $\angle ACD$ .



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**5.** In  $\triangle$  PQR,  $\angle P=60^{\circ}$  ,  $\angle Q=95^{\circ}$  , then write names of longest and the smallest sides.



**6.**  $\triangle ABC \sim \triangle PQR$ . Then, complete the following  $ABPQ=B {\color{red} -} {\color{red} C} \ {\color{gray} -} \ =_{---/} PR.$ 



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 $\angle X = \angle L, \angle Y = \angle M$ , then by which test

**7.** In  $\triangle XYZ$  and  $\triangle LMN$ ,

 $\triangle XYZ$  and  $\triangle LMN$  are similar?



**8.**  $\triangle$   $ABC \sim \triangle$  PQR. Write ratios of corresponding sides.



**9.** Write Side-Angle-Side (SAS) test of congruency.



**10.** In

$$riangle ABC, riangle A=30^{\circ}, riangle B=90^{\circ}, riangle C=60^{\circ}$$

.Write lengths of sides opposite to  $30^{\circ} \ {\rm and} \ 60^{\circ}$  with respect to AC.



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**11.** 3 angles of triangle are  $x^{\circ}$ ,  $3x^{\circ}$ ,  $5x^{\circ}$ . Find measures of each angle.



**12.** In  $\ \bigtriangleup \ PQR, \angle Q = 25^{\circ}, \angle R = 120^{\circ}.$  Find

 $\angle P$  and give reason.



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13.

$$\triangle$$
 *PQR*~  $\triangle$  *XYZ*.  $\angle$ *P* = 60 $^{\circ}$  ,  $\angle$ *Q* = 40 $^{\circ}$  .

Find  $\angle Z$ .



**14.**  $\triangle ABC \sim \triangle PQR$ . AB = 8 ,BC = 10,

AC = 9, PQ = 12. Find PR and QR.



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**15**. In

$$riangle ABC, extstyle A=30^{\circ}, extstyle B=90^{\circ}, extstyle C=60^{\circ}.$$

AC = 18. Find AB and AC.



**16.** Ratio of 3 angles of a triangle are 3:4:5. Find each angle.



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**17.** In Quadrilateral ABCD, AB=AD, AC bisects  $\angle A$ . Prove that  $\Delta ABC\cong \Delta ADC$ .



**18.** Prove that equilateral triangle is equiangular.



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**19.** Show that in right angled triangle, the hypotenuse is the longest side.

