

MATHS

BOOKS - RD SHARMA MATHS (ENGLISH)

CONSTRUCTIONS

Others

1. Draw an $\angle BAC$ of measure 50^0 such that

 $AB=5\,cm$ and $AC=7\,cm$. Through C

draw a line parallel to AB and through Bdraw a line parallel to AC, intersecting each other at D. Measure BD and CD.



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2. Draw a line PQ . Draw another line parallel to PQ at a distance of 3 cm from it.



3. Take any three non-collinear points A, B, C and draw ABC . Through each vertex of the triangle, draw a line parallel to the opposite side.



4. Draw two parallel lines at a distance 5 cm apart.



5. Construct a triangle ABC if the lengths of its sides are given by

$$AB=6\,cm,\;BC=7\,cm$$
 and $AC=5\,cm\cdot$



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6. Draw ABC in which

 $AB=4.5\,cm,\;BC=5\,cm\;and\;CA=6\,cm\cdot$

Also, draw the perpendicular bisector of BC_{\cdot}



7. DrawABC in which $AB=5\,cm$.

 $BC=6\ cm$ and $CA=7\ cm$. Also, draw perpendicular bisector of side BC .



8. DrawPQR in which $PQ=3\,cm$, $QR=4\,cm$ and $RP=5\,cm$. Also, draw the bisector of $\angle Q$.



9. Draw an equilateral triangle one of whose sides is of length $7\ cm$.



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10. Draw a triangle whose sides are of lengths $4\ cm,\ 5\ cm\ and\ 7\ cm.$ Draw the perpendicular bisector of the largest side.



11. Draw a triangle ABC with $AB=6\ cm,\ BC=7\ cm$ and $CA=8\ cm.$ Using ruler and compass alone, draw (i) the bisector AD of $\angle A$ and (ii) perpendicular AL from A on BC. Measure LAD.



12. DrawDEF such that $DE=DF=4\,cm$ and $EF=6\,cm$. Measure $\angle E$ $\ and$ $\angle F$.



13. Draw any triangle ABC . Bisect side AB at D . Through D , draw a line parallel to BC , meeting AC in E . Measure AE and EC .



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14. Construct ABC in which

$$\angle B = 60^{\circ}, \ AB = 5cm \ and \ BC = 6cm \cdot$$



15. Draw a triangle ABC with $BC=3.\ 2\ cm,\ AB=3.\ 6\ cm$ and $\angle B=120^{0}.$ Also draw a perpendicular from A on BC .



16. DrawABC in which $AB=3\,cm,$ $BC=5\,cm$ and $\angle B=70^{0}.$



17. DrawABC in which $\angle A=70^{0}$,

 $AB=4\,cm$ and $AC=6\,cm$. Measure BC.



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18. Draw an isosceles triangle in which each of the equal sides is of length 3 cm and the angle between them is 45° .



19. Draw ABC in which

$$\angle A=120^0,\;AB=AC=3cm$$
. Measure

$$\angle B$$
 and $\angle C$.



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20. DrawABC in which $\angle C = 90^0$ and

$$AC = BC = 4 cm$$



21. Draw a triangle ABC in which

 $BC=4\,cm,\;AB=3\,cm$ and $\angle B=45^{0}.$

Also, draw a perpendicular from A on BC



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22. Draw a triangle ABC with $AB=3\,cm,$ $BC=4\,cm$ and $\angle B=60^{\circ}$. Also, draw the bisector of angles C and A of the triangle, meeting in a point O. Measure $\angle COA$.



23. draw ABC in which

$$BC=6~cm, \angle B=35^{0}~and~ \angle C=100^{0}$$
 .

Measure $\angle A$.



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24. Draw a triangle ABC in which

$$BC=5.~2~cm,~ \angle B=60^{0}~and~ \angle A=100^{0}$$



25. Construct ABC in which $BC=4\ cm,\ \angle B=50^0\ ext{and}\ \angle C=70^0.$



26. Draw ABC in which $BC=8\,cm,\; \angle B=50^0$ and $\angle A=50^0$.

27. Draw PQR in which $\angle Q=80^0, \angle R=55^0$ and QR=4.~5~cm. Draw the perpendicular

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bisector of side QR.



29.

28. Construct ABC in which

Draw ABC in which

 $AB = 6.4 cm, \ \angle A = 45^0 \ and \ \angle B = 60^0.$

 $AC = 6 \ cm, \ \angle A = 90^0 \ and \ \angle B = 60^0.$

30. Draw triangle ABC with $\angle C$ a right angle,

$$AB=6.\ 2\ cm$$
 and $BC=4.\ 5\ cm$



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31. Draw a right triangle having hypotenuse of length $5.4\,cm$, and one of the acute angles of measure 60° .



32. Draw a right triangle with hypotenuse of length $5\ cm$ and one side of length $4\ cm$.



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33. Draw a right triangle whose hypotenuse is of length $4\,cm$ and one side is of length $2.\,5\,cm$.



34. Draw a right triangle having hypotenuse of length $5.\ 4\ cm,$ and one of the acute angles of measure 30^{0} .



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35. Construct a right triangle ABC in which

$$AB=5.\,8\,cm, \qquad BC=4.\,5\,cm$$
 and

$$\angle C = 90^{\circ}$$



36. Construct a right triangle, right angled at

C in which $AB=5.\ 2 ackslash\ cm$ and

BC = 4.6 cm

