Assignment4

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Question:

Draw ΔABC with a = 7, $\angle$B = 45° and $\angle$A = 105°

Answer:

To construct ΔABC we first need to find $\angle$C
By angle sum property we know that

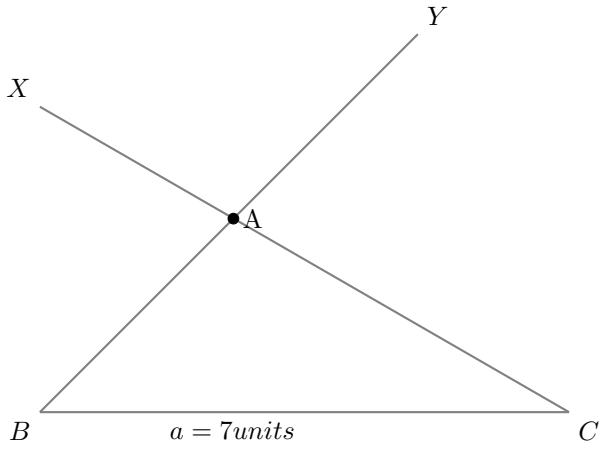
$$\angle A + \angle B + \angle C = 180^\circ \tag{1}$$

putting values of $\angle$A and $\angle$B in equation 1 we get

$$45^\circ + 105^\circ + \angle C = 180^\circ$$
$$\angle C = 180^\circ - 150^\circ$$
$$\angle C = 30^\circ$$

Steps of Construction:

1. Draw a line segment BC of length = 7 units
2. Using a protractor at point C, draw a line CX making an angle of 30° with CB
3. Similarly, from point C draw a line BY making an angle of 45° with BC
4. Mark the point of intersection of CX and BY as A
5. figure ABC is the required triangle


Y
X
A
B
a = 7units
C