

Name : _____

Score : _____ Date : _____

Constructing Similar Triangles Worksheet

Reminder: Use only compass and straight edge when drawing

- 1 Construct a triangle $\triangle ABC$ in which $AB = 6\text{cm}$, $BC = 4\text{cm}$, and $AC = 5\text{cm}$. Now, construct a triangle similar to $\triangle ABC$ such that each of its sides is two third of the corresponding sides of $\triangle ABC$
- 2 Draw a triangle ABC with sides $BC=11\text{cm}$, $\angle B=30^\circ$ and $\angle A=110^\circ$. Now construct a triangle whose sides are $(4/3)$ times the corresponding sides of $\triangle ABC$.
- 3 Prepare a triangle similar to a given triangle XYZ such that each of its side is $(4/7)$ th of the corresponding sides of $\triangle XYZ$. It is given that $XY=7\text{cm}$, $XZ=6\text{cm}$ and $YZ=8\text{cm}$.
- 4 Construct a $\triangle PQR$ in which $PQ=4\text{cm}$, $\angle B=60^\circ$ and a height or altitude of $PL=5\text{cm}$. Construct a $\triangle ABC$ similar to $\triangle PQR$ such that each side of $\triangle ABC$ is $3/2$ times that of the respective side of $\triangle ABC$.
- 5 A triangle ABC with sides $AC= 5\text{cm}$, $AB=4\text{cm}$ and $BC=9\text{cm}$ is similar to $\triangle PQR$, with sides thrice than $\triangle ABC$. Draw and represent the two given triangles.