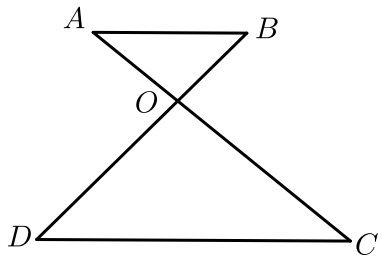
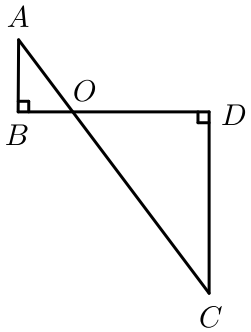
Think Academy

Day 7

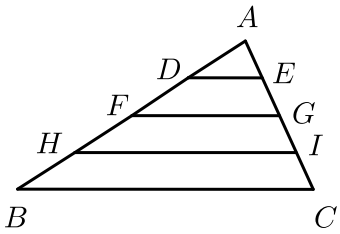
1 As shown in the figure below, $AB//CD$, $AB=6$, $CD=14$. Find the value of $AO:OC$, $BO:OD$, and $S_{\triangle ABO}:S_{\triangle CDO}$, respectively.



2 As shown in the figure below, $AB\perp BD$, $CD\perp BD$, $BO=2$, and $AB=3$, $OD=6$, what is the area of $S_{\triangle COD}$?



3 As shown in the figure below, in $\triangle ABC$, $AD = DF = FH = HB$, $AE = EG = GI = IC$. What fraction of the area of $\triangle ABC$ is the area of $\triangle ADE$?



4 As shown in the figure below, in $\triangle ABC$, $AB = 3BE$, $AC = 3CD$, G is the midpoint of AD and F is the midpoint of ED. Given that the area of quadrilateral $BCDE$ is 20 cm^2 larger than that of $\triangle DGF$, what is the area of $\triangle ABC$?