# Adjoint Institute of Mathematics Faculty of Mathematics 

IIT Foundation Weekly - QUIZ<br>Faculty:G Ekaveera Kumar

Topic: PT practice
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1. In the figure below $A B=B C=C D=D E=E F=F G=G A$. Find $\angle D A E$ in degrees.

2. AB and CD are two chords such that $\mathrm{AB}=10 \mathrm{~cm}, \mathrm{CD}=24 \mathrm{~cm}$ and AB is parallel to CD . The distance between the chords is 17 cm . Find the radius of the circle.
3. The two opposite vertices of a square are $(-1,2)$ and $(3,2)$. Find the coordinates of the other two vertices. Also find the area of the square.
4. The vertices of a triangle are $(5,1),(11,1)$ and $(11,9)$. Find the coordinates of the circumcentre of the triangle.What is your observation?
5. ABC is a triangle right angled at C. A line through the mid-point M of hypotenuse $A B$ and parallel to $B C$ intersects $A C$ at $D$. Show that $C M=M A=\frac{1}{2} A B$
