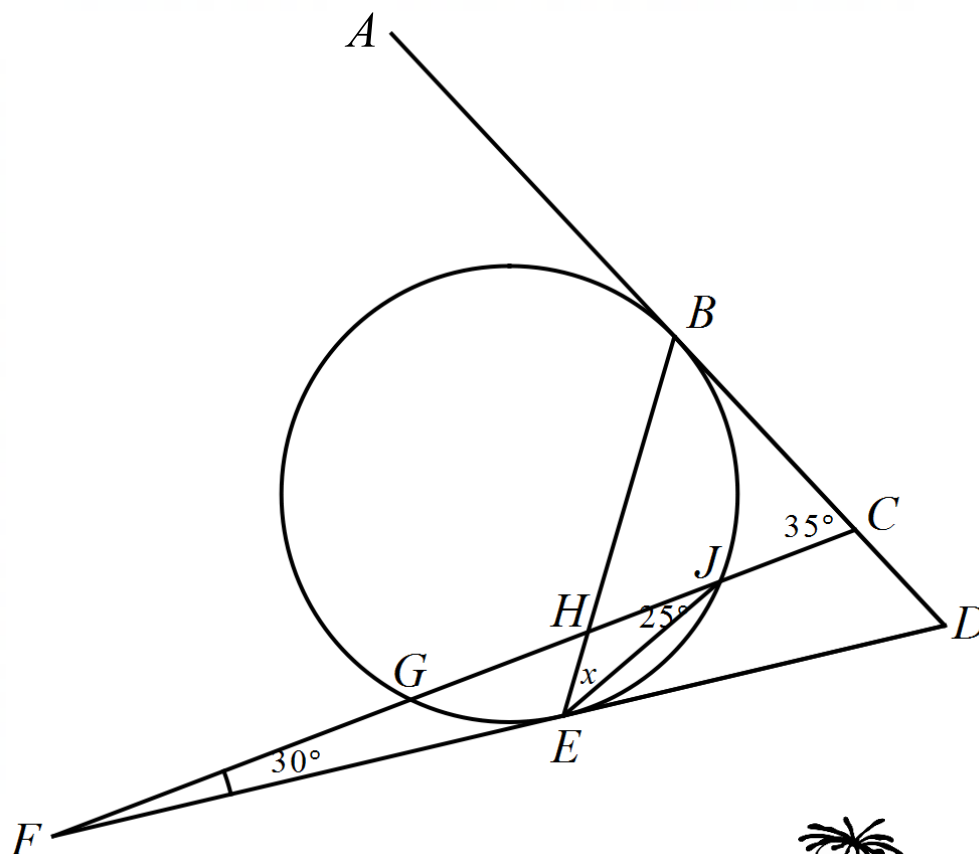


Question 2

DA and DF are tangents to the circle at B and E respectively. C is a point on DA such that CF intersects the circle at J and G , and intersects BE at H . $\hat{ACF} = 35^\circ$, $\hat{DFC} = 30^\circ$ and $\hat{FJE} = 25^\circ$. Let $\hat{JEH} = x$.



Determine the size of x .



Memo

$\hat{JED} = 55^\circ$ (ext $\angle$ of Δ)	✓ S/R
$\hat{D} = 5^\circ$ (ext $\angle$ of Δ)	✓ S/R
$DB = DE$ (tans from same pt)	✓ S/R
$\therefore \hat{DBE} + \hat{DEB} = 175^\circ$ ($\angle$ sum of Δ)	✓ S/R
$\therefore \hat{DEB} = 87\frac{1}{2}^\circ$ ($\angle$ s opp equal sides)	✓ S/R
$\therefore x + 55^\circ = 87\frac{1}{2}^\circ$	
$\therefore x = 32\frac{1}{2}^\circ$	✓ S
	(6)