b) M is midpt of [CD].
then

$x_M = \frac{x_C + x_D}{2}$; $y_M = \frac{y_M + y_D}{2}$

$x_M = 3$ $\qquad$ $y_M = \frac{3}{2}$

$M\left(3, \frac{3}{2}\right)$

(Δ) perp. bisector of (CD) (given)
and (CD) is parallel to y-axis (proved)
then (CD) is perp. to x-axis (orthonormal).

hence (D) is parallel to x-axis (2 st. lines perp. to same st. line are parallel)
of eqn $y = cst$
but (Δ) passes through $M\left(3, \frac{3}{2}\right)$

Thus, (Δ): $y = \frac{3}{2}$.

5) (T) is tangent to (C) at S.
then $(T) \perp SI$ (Tangent theorem: tangent and radius are perpendicular)

So, $a_{(T)} \cdot a_{(SI)} = -1$

but, $a_{SI} = \frac{y_I - y_S}{x_I - x_S} = \frac{\frac{3}{2} - 2}{\frac{5}{2} - 1} = \frac{-\frac{1}{2}}{+\frac{3}{2}} = -\frac{1}{3}$

hence, $\boxed{a_{(T)} = +3}$

(T): $\frac{y - y_S}{x - x_S} = 3$