1) $ED = 3$, donc $DA = 7 - 3 = 4$

Donc $\text{Aire}(ABCD) = DA \times BA = 4 \times 5 = 20 \text{ cm}^2$

$\text{Aire}(DCE) = \dfrac{ED \times CD}{2} = \dfrac{ED \times BA}{2} = \dfrac{3 \times 5}{2} = 7{,}5 \text{ cm}^2$

2) On pose $ED = x$, donc $DA = 7 - x$

On a donc $\text{Aire}(ABCD) = DA \times BA = (7 - x) \times 5 = 35 - 5x$

$\text{Aire}(DCE) = \dfrac{ED \times CD}{2} = \dfrac{x \times 5}{2} = 2{,}5x$

Donc $\text{Aire}(ABCD) = \text{Aire}(DCE)$

$\Leftrightarrow \quad 35 - 5x = 2{,}5x \quad \Leftrightarrow \quad 7{,}5x = 35$

$\Leftrightarrow \quad x = \dfrac{35}{7{,}5} = \dfrac{14}{3} \approx 4{,}7 \text{ cm}$

si $x = \dfrac{14}{3}$, les deux aires valent $2{,}5 + \dfrac{14}{3} = \dfrac{35}{3}$

$\approx 11{,}7 \text{ cm}$