



$$A_T = \frac{b \cdot h}{2}$$

CALCULAR b

$\vec{AC}(-8, -2) \rightarrow$ VECTOR \vec{AC} (BASE)

$$|\vec{AC}| = \sqrt{(-8)^2 + (-2)^2} = \sqrt{68} = \sqrt{2^2 \cdot 17} = 2\sqrt{17}$$

CALCULAR h

RECTA BASE (r)

$$\vec{AC}(-8, -2) \\ A(7, 0) \quad \frac{x-7}{-8} = \frac{y}{-2} \Rightarrow -2x+14 = -8y$$

$$-x+7 = -4y \Rightarrow \boxed{-x+4y+7=0}$$

RECTA ALTURA (s)

$$\vec{AC}(-8, -2) \quad \vec{n}_{AC}(2, -8)$$

$$B(1, 6) \quad \frac{x-1}{2} = \frac{y-6}{-8} \Rightarrow -8x+8 = 2y-12$$

$$-8x-2y+20=0 \Rightarrow \boxed{4x+y-10=0}$$

CALCULAR D, PUNTO DE INTERSECCIÓN DE
r y s.

$$-x + 4y + 7 = 0 \xrightarrow{\cdot 4} -4x + 16y + 28 = 0$$

$$4x + y - 10 = 0 \longrightarrow 4x + y - 10 = 0$$

$$17y + 18 = 0$$

$$y = \frac{-18}{17}$$

$$\longrightarrow 4x - \frac{18}{17} - 10 = 0 \longrightarrow x = \frac{188}{68} = \frac{47}{17}$$

$$D\left(\frac{47}{17}, \frac{-18}{17}\right)$$

CALCULAR EL VECTOR $\overrightarrow{DB}\left(-\frac{30}{17}, \frac{120}{17}\right)$

CALCULAR EL MÓDULO DE \overrightarrow{DB} (h)

$$|\overrightarrow{DB}| = \sqrt{\left(-\frac{30}{17}\right)^2 + \left(\frac{120}{17}\right)^2} =$$

$$\sqrt{\frac{900}{17^2} + \frac{14400}{17^2}} = \sqrt{\frac{15300}{17^2}} = \frac{30\sqrt{17}}{17}$$

$$A_T = \frac{2\sqrt{17} \cdot \frac{30\sqrt{17}}{17}}{2} = \boxed{30 \text{ u}^2}$$