

EXERCICIS encara no fets

(17)

(26) c) r passa pel punt mitjà de \overline{AB} $M\left(\frac{4+0}{2}, \frac{0+8}{2}\right) =$
 \uparrow
 $A(4,0)$
 $B(0,8)$

$\equiv M(2, 4)$

r és perpendicular al segment \overline{AB}

$\vec{v}_r \perp (-4, 8) \equiv (-1, 2) \quad \vec{v}_r(2, 1)$

r: $\left. \begin{array}{l} x = 2 + 2t \\ y = 4 + t \end{array} \right\}$

(28) a) $d((0,0), r) = \frac{|0 \cdot 2 - 0 \cdot 3 - 4|}{\sqrt{2^2 + 3^2}} = \frac{4}{\sqrt{13}} \mu.$

r: $2x - 3y - 4 = 0$

b) $d((0,0), r) = \frac{|0 \cdot 5 - 2 \cdot 0 - 4|}{\sqrt{5^2 + 4^2}} = \frac{4}{\sqrt{41}} \mu$

r: $5x - 2y - 4 = 0$

c) $d((0,0), r) = 0$

\uparrow
 $(0,0) \in r: 0 \cdot 7 - 4 \cdot 0 = 0$

(31) Trobem l'angle que formen les rectes:

a) r: $y = 2x + 5 \rightarrow m_r = 2 \Rightarrow \vec{v}_r(1, 2)$

s: $y = -3x + 1 \rightarrow m_s = -3 \Rightarrow \vec{v}_s(1, -3)$

$(r, s) = (\hat{v}_r, \hat{v}_s) = \arccos\left(\frac{|\vec{v}_r \cdot \vec{v}_s|}{\|\vec{v}_r\| \|\vec{v}_s\|}\right) =$

$= \arccos\left(\frac{|1 \cdot -6|}{\sqrt{1^2 + 2^2} \sqrt{1^2 + 3^2}}\right) = \arccos\left(\frac{6}{\sqrt{5} \sqrt{10}}\right) =$