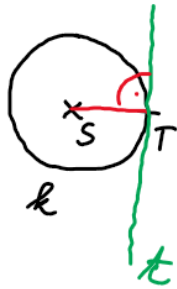


Skriška úloh V.

29/3.40 OR tečny kružnice v bode T [6;2],  
jestliže střed kružnice je S [3;-4]



$$\vec{n} = \vec{TS} = (-3; -6) = (1; 2) = \vec{n}_t$$

$$x + 2y + c = 0$$

$$T: 6 + 4 + c = 0 \quad c = -10$$

$$t: \underline{x + 2y - 10 = 0}$$

29/3.41  $\triangle ABC: A[-1;3], B[2;-2], C[-4;-3]$

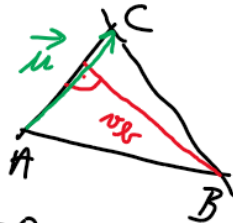
OR výšky vr

$$\vec{n} = \vec{AC} = (-3; -6) = (1; 2)$$

$$\vec{m} = (-2; 1)$$

$$x + 2y + c = 0$$

$$B: 2 - 4 + c = 0 \quad c = 2$$



vr:

$$\underline{x + 2y + 2 = 0}$$

29/3.42 uradi polohu přímek p a q  $p \parallel q$ :

a) p:  $2x - 3y + 5 = 0$

q:  $3x - 2y + 5 = 0$

$$\vec{n}_p = (2; -3)$$

$$\vec{n}_q = (3; -2)$$

$$\vec{n}_p = k \cdot \vec{n}_q$$

$$2 = 3k \quad k_1 = \frac{2}{3}$$

$$-3 = -2k_2 \quad k_2 = \frac{3}{2}$$

některoběžné

$$\left. \begin{matrix} 2 = 3k_1 & k_1 = \frac{2}{3} \\ -3 = -2k_2 & k_2 = \frac{3}{2} \end{matrix} \right\} p \nparallel q$$

vypočet průsečíku:

$$p: x = \frac{3y-5}{2}$$

$$q: x = \frac{2y-5}{3}$$

$$\frac{3y-5}{2} = \frac{2y-5}{3}$$

$$9y - 15 = 4y - 10$$

$$5y = 5 \quad y = 1 \Rightarrow x = -1$$

$$\underline{\underline{R[-1;1]}}$$

29/3.44 OR přímky q, M ∈ q, q || p. p:  $4x - 3y + 2 = 0$

$$x \parallel p \nparallel q$$

$$4x - 3y + c = 0$$

$$M[3;5]$$

$$x \parallel p$$

$$M: 27 - 15 + c = 0 \quad c = -6$$

$$q: \underline{\underline{4x - 3y - 6 = 0}}$$

29/3.45 OR přímky q: M ∈ q, q ⊥ p. p:  $2x - 5y + 10 = 0$



$$\vec{n}_p = (2; -5)$$

$$\vec{n}_q = (5; 2)$$

$$M[4; -7]$$

$$\vec{n}_p \cdot \vec{n}_q = 0$$

$$5x + 2y + c = 0$$

$$M: 20 - 14 + c = 0 \quad c = -6$$

$$q: \underline{\underline{5x + 2y - 6 = 0}}$$