

VZOROVKA B

① $\frac{6+25x}{15} - (x-1) = \frac{2x}{3} + \frac{7}{5}$

ZK: $L(0) = \frac{6+25 \cdot 0}{15} - (0-1) = \frac{6}{15} + 1 = \frac{21}{15} = \frac{7}{5}$

$\frac{6+25x}{15} - x + 1 = \frac{10x+21}{15}$

$1 \cdot 15 \quad P(0) = \frac{2 \cdot 0}{3} + \frac{7}{5} = \frac{7}{5} \quad \underline{\underline{L=P}}$

$6+25x-15x+15 = 10x+21$
 $10x = 10x$

$1 \cdot 21 \quad L(2) = \frac{6+25 \cdot 2}{15} - (2-1) = \frac{56-15}{15} = \frac{41}{15}$

$K = \mathbb{R}$

$x = x$

$P(2) = \frac{2 \cdot 2}{3} + \frac{7}{5} = \frac{20+21}{15} = \frac{41}{15} \quad \underline{\underline{L=P}}$

② ① ANO

② NE jsou-li n průmce, největší úhel rovníká

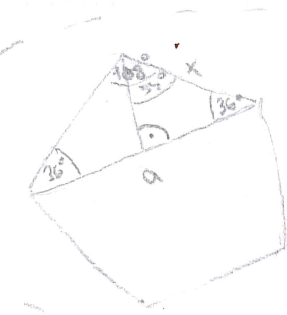
③ NE Délka ramene může být stejná jako jeho výška - PRAVOÚHLÝ LICHOBĚŽNÍK



① $\frac{n \cdot (n-3)}{2} = \frac{12 \cdot (12-3)}{2} = \underline{\underline{54}}$

② $\cos 36^\circ = \frac{x}{2a} \Rightarrow x = 2a \cdot \cos 36^\circ$

③ $(n-2) \cdot 180^\circ = (8-2) \cdot 180^\circ = \underline{\underline{1080^\circ}}$



$180^\circ - 108^\circ = 72^\circ$
 $72^\circ : 2 = 36^\circ$

③ a) $x^2 - 9x + 3 = (x^2 - 9x + 4,5^2) + 3 - 4,5^2 = (x - 4,5)^2 + 3 - 20,25 = \underline{\underline{(x - 4,5)^2 - 17,25}}$

b) $-5x^2 + 30x - 8 = -5 \cdot (x^2 - 6x + 3^2) - 8 - (-5) \cdot 3^2 = \underline{\underline{-5 \cdot (x - 3)^2 + 37}}$

c) $3x^2 + 7x - 1 = 3 \cdot (x^2 + \frac{7}{3}x + \frac{49}{36}) - 1 - \frac{3 \cdot 49}{36} = 3 \cdot (x + \frac{7}{6})^2 - \frac{12+49}{12} = \underline{\underline{3 \cdot (x + \frac{7}{6})^2 - \frac{61}{12}}}$

④ $\left[\frac{(n+2)^3}{(n-2)^3} : \frac{n^3+4n^2+4n}{3n^2-12n+12} \right] \cdot \frac{n}{3} = \frac{(n+2)^3}{(n-2)^3} \cdot \frac{3 \cdot (n^2-4n+4)}{n \cdot (n^2+4n+4)} \cdot \frac{n}{3} = \frac{(n+2)^3}{(n-2)^3} \cdot \frac{(n-2)^2}{(n+2)^2} =$

$\frac{n+2}{n-2}$

$n-2 \neq 0$

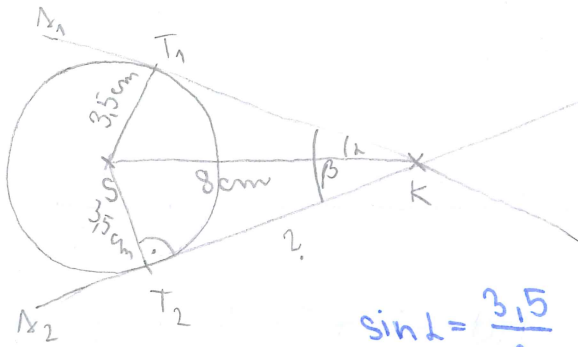
$n+2 \neq 0$

$n \neq 0$

$n \neq 2$

$n \neq (-2)$

5.



$$|KT_2|^2 = |KS|^2 - |ST_2|^2$$

$$|KT_2|^2 = 64 - 12,25$$

$$|KT_2| = \sqrt{51,75}$$

$$\underline{\underline{|KT_2| = 7,2 \text{ cm}}}$$

$$\sin \alpha = \frac{3,5}{8}$$

$$\alpha = 25^\circ 57'$$

$$\beta = 2 \cdot \alpha = 2 \cdot 25^\circ 57' = \underline{\underline{51^\circ 54'}}$$

Ječný svazek níhel o velikosti $51^\circ 54'$ a body dotyku T_1, T_2 od bodu K jsou vzdáleny $7,2 \text{ cm}$.

$$\textcircled{6} \quad \text{a) } \underline{\underline{m^2 - k^2 + 6m + 9 + 4k - 4 = (m+3)^2 + (-1) \cdot (k^2 - 4k + 4) = (m+3)^2 - (k-2)^2 = \\ = [(m+3) - (k-2)] \cdot [(m+3) + (k-2)] = [m-k+5] \cdot [m+k+1]}}$$

$$\text{b) } \underline{\underline{e^3 - 64f^{12} = (e^3 - 8f^6) \cdot (e^3 + 8f^6) = (e - 2f^2) \cdot (e^2 + 2ef^2 + 4f^4) \cdot (e + 2f^2) \cdot (e^2 - 2ef^2 + 4f^4)}}$$

$$\text{c) } \underline{\underline{112cd + 64d^2 + 49c^2 = 64d^2 + 112cd + 49c^2 = (8d + 7c)^2}}$$

$$\text{d) } \underline{\underline{x^2 + 12x - 28 = (x+14) \cdot (x-2)}}$$

$$\text{e) } \underline{\underline{y^5 - 16y = y \cdot (y^4 - 16) = y \cdot (y^2 - 4) \cdot (y^2 + 4) = y \cdot (y-2) \cdot (y+2) \cdot (y^2 + 4)}}$$

$$\text{f) } \underline{\underline{-4 - a + 3m \cdot (4+a) = -(4+a) + 3m \cdot (4+a) = (-1+3m) \cdot (4+a)}}$$