

3.97
k9

$$\frac{(x+1)^4}{4\sqrt{2}} \left(1 + \frac{1}{x}\right)^2$$

$$T_{k+1} = \binom{4}{k} x^{4-k} \cdot 1^k$$

$$V_{l+1} = \binom{2}{l} 1^{2-l} x^{-l}$$

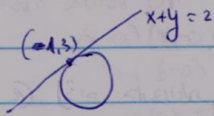
$$4-k-l=1 \leftarrow x^{4-k} \cdot 4^{-l} \quad : x^1 \text{ ב } P_3 \text{ נדר}$$

$$\boxed{3=k+l}$$

$$l=0, k=3 \rightarrow \frac{1}{4\sqrt{2}} \binom{4}{3} \binom{2}{0} = \frac{1}{\sqrt{2}} \quad \left. \begin{array}{l} \text{א) מדר} \\ 0 \leq k \leq 4 \\ 0 \leq l \leq 2 \end{array} \right\}$$

$$l=1, k=2 \rightarrow \frac{1}{4\sqrt{2}} \binom{4}{2} \binom{2}{1} = \frac{3}{\sqrt{2}} \quad \frac{S}{\sqrt{2}} = R$$

$$l=2, k=1 \rightarrow \frac{1}{4\sqrt{2}} \binom{4}{1} \binom{2}{2} = \frac{1}{\sqrt{2}}$$



$M(a,b)$ סעיף (א) של תרגום
 (-1,3) נקודה על המעגל
 הנתון הוא $x^2 + y^2 = 10$
 ו-2 הוא המרחק

$$\frac{S}{\sqrt{2}} = \frac{|a+b-2|}{\sqrt{2}}$$

$$\frac{S}{\sqrt{2}} = \sqrt{(a+1)^2 + (b-3)^2}$$

$$S = |a+b-2|$$

$$S = a+b-2$$

$$-S = a+b-2$$

$$\boxed{a = -b+7}$$

$$\boxed{a = -3-b}$$

הנקודה הנכנסת היא (-3)

$$\frac{S}{\sqrt{2}} = \sqrt{(-b+7+1)^2 + (b-3)^2} / (1)$$

$$\frac{S}{\sqrt{2}} = \sqrt{(-3-b+1)^2 + (b-3)^2}$$

$$\frac{2S}{2} = 2b^2 - 22b + 73$$

$$0 = 4b^2 - 44b + 121$$

$$0 = (2b-11)^2 \rightarrow b = 5\frac{1}{2}$$

$$a = 1\frac{1}{2}$$

$$(x-1\frac{1}{2})^2 + (y-5\frac{1}{2})^2 = \frac{2S}{2}$$

$$\frac{2S}{2} = 2b^2 - 2b + 13$$

$$0 = 4b^2 - 4b + 11$$

$$0 = (2b-1)^2$$

$$b = \frac{1}{2} \quad a = -3\frac{1}{2}$$

$$(x+3\frac{1}{2})^2 + (y-\frac{1}{2})^2 = \frac{2S}{2}$$