

2.32
6

$$\binom{m}{0} + \binom{m}{1} + \binom{m}{2} = 22$$

$$1 + m + \frac{m(m-1)}{2} = 22 \quad /:2$$

$$m^2 + m - 42 = 0$$

~~m = -7~~ → המספרים המיונים של המספרים
היו אלו המספרים
m = 6

$$T_3 = T_{2+1} = \binom{6}{2} (\sqrt{2^x})^2 \left(\frac{1}{\sqrt{2^x}}\right)^2$$

$$T_5 = T_{4+1} = \binom{6}{4} (\sqrt{2^x})^4 \left(\frac{1}{\sqrt{2^x}}\right)^4$$

$$90 < 15(\sqrt{2^x})^4 \left(\frac{1}{\sqrt{2^x}}\right)^4 + 15(\sqrt{2^x})^2 \left(\frac{1}{\sqrt{2^x}}\right)^2 < 135 \quad /:15$$

$$6 < 2^{2x} \cdot 2 + 2^x \cdot 2^{2-x} < 9$$

$$6 < 2^{1+x} + 2^{2-x} < 9$$

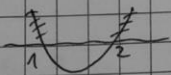
$$6 < 2 \cdot 2^x + \frac{4}{2^x} < 9$$

$$6 < 2t + \frac{4}{t} < 9$$

$$0 < 2^x = t \quad (10)$$

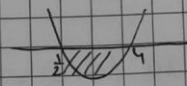
$$6t < 2t^2 + 4 < 9t$$

$$0 < 2t^2 - 6t + 4$$



$$\begin{array}{l} 1 > t \\ 1 > 2^x \\ 0 > x \end{array} \quad \begin{array}{l} t > 2 \\ 2^x > 2 \\ x > 1 \end{array}$$

$$2t^2 - 9t + 4 < 0$$



$$\begin{array}{l} \frac{1}{2} < t < 4 \\ \frac{1}{2} < 2^x < 4 \\ -1 < x < 2 \end{array}$$

$$-1 < x < 0$$

11c

$$1 < x < 2$$

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