

$$\begin{cases} m \cdot \left(\frac{4}{3}\right)^x + \left(\frac{1}{2}\right)^y = m^2 \\ \left(\frac{4}{3}\right)^x + m \cdot \frac{1}{2}^y = m^2 \end{cases}$$

$$\begin{cases} mA + B = m^2 \\ A + mB = m^2 \end{cases}$$

$$\Delta = \begin{vmatrix} m & 1 \\ 1 & m \end{vmatrix} = m^2 - 1$$

$$\Delta x = \begin{vmatrix} m^2 & 1 \\ m^2 & m \end{vmatrix} = m^3 - m^2$$

$$\Delta y = \begin{vmatrix} m & m^2 \\ 1 & m^2 \end{vmatrix} = m^3 - m^2$$

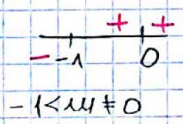
$$A = \left(\frac{4}{3}\right)^x \quad B = \left(\frac{1}{2}\right)^y$$

$$x, y \leq 1$$

$$0 < A \leq \frac{4}{3}$$

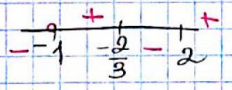
$$0 < \frac{m^2}{m+1} \leq \frac{4}{3}$$

$$0 < \frac{m^2}{m+1}$$

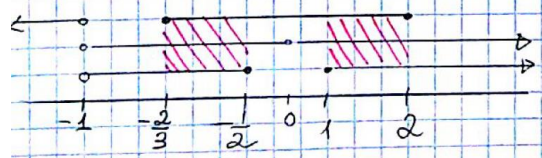


$$\frac{3m^2 - 4m - 4}{3(m+1)} \leq 0$$

$$\frac{(m-2)(3m+2)}{3(m+1)} \leq 0$$



$$\left\{ \begin{array}{l} -\frac{2}{3} \leq m \leq 2 \\ m < -1 \end{array} \right\}$$



$$\left\{ \begin{array}{l} -\frac{2}{3} \leq m \leq 2 \\ 1 < m \leq 2 \end{array} \right\}$$

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פתרון וחי'א

$\Delta \neq 0$, אחרת אין פתרון

$$\begin{aligned} m^2 - 1 &\neq 0 \\ m &\neq \pm 1 \end{aligned}$$

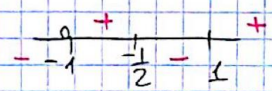
$$A = \frac{\Delta A}{\Delta} = \frac{m^3 - m^2}{m^2 - 1} = \frac{m^2(m-1)}{(m-1)(m+1)} = \frac{m^2}{m+1}$$

$$\frac{1}{2} \leq B$$

$$\frac{1}{2} \leq \frac{m^2}{m+1}$$

$$0 \leq \frac{2m^2 - m - 1}{2(m+1)}$$

$$0 \leq \frac{2(m-1)(m+\frac{1}{2})}{2(m+1)}$$



$$\left\{ \begin{array}{l} m \geq 1 \\ -1 < m \leq -\frac{1}{2} \end{array} \right\}$$