1.66 3

$(1+a)x^2 - 3ax + 4a = 0$

כדי שזהו 2 פתרונות, צריך $1+a \neq 0 \Leftarrow \boxed{a \neq -1}$

נרשום את המשוואה

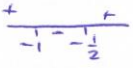
$$x^2 - \frac{3a}{1+a}x + \frac{4a}{1+a} = 0$$

צריך ① $\Delta \geq 0$ ② $f(1) > 0$ ③ $\frac{-b}{2a} > 1$

① $0 \leq 9a^2 - 16a(1+a) = -7a^2 - 16a$

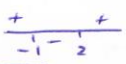
$\boxed{-\frac{16}{7} \leq a \leq 0 \quad a \neq -1}$

② $0 < f(1) = 1 - \frac{3a}{1+a} + \frac{4a}{1+a} = \frac{2a+1}{1+a}$



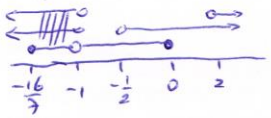
$\boxed{a > -\frac{1}{2} \quad a < -1}$

③ $1 < -\frac{b}{2a} = \frac{3a}{2(1+a)} \rightarrow 0 < \frac{3a-2-2a}{2(1+a)} = \frac{a-2}{2(1+a)}$



$\boxed{a > 2 \text{ או } a < -1}$

חותכים בין השניים



$\boxed{-\frac{16}{7} \leq a < -1}$