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(R) $3mx^2 + (3+7m)x + 1+5m = 0$

$x^2 + \frac{3+7m}{3m}x + \frac{1+5m}{3m} = 0$ $m \neq 0$



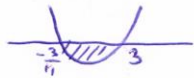
$-\frac{b}{2a} > 0$, $f(0) > 0$, $0 > 0$ (en3)

(1)

$\left(\frac{3+7m}{3m}\right)^2 - \frac{4(1+5m)}{3m} \geq 0$

$9 + 42m + 49m^2 - 12m - 60m^2 \geq 0$

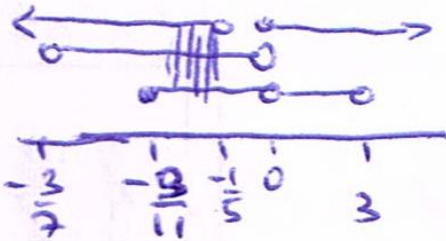
$0 > 11m^2 - 30m - 9$



$-\frac{3}{11} \leq m \leq 3$
 $m \neq 0$

(2) $0 < f(0) = \frac{1+5m}{3m}$ $\frac{+}{-} \rightarrow \frac{+}{-}$ $\left[\begin{matrix} m < -\frac{1}{5} \\ m > 0 \end{matrix} \right]$

(3) $0 < -\frac{b}{2a} = -\frac{3+7m}{6m}$ $\frac{+}{-}$ $\left[-\frac{3}{7} < m < 0 \right]$



תחום המציאות

$-\frac{3}{11} \leq m < -\frac{1}{5}$

(2) $\Delta \geq 0$ $f(1) > 0$ $f(0) < 0$ (en3)

(1) $-\frac{3}{11} \leq m \leq 3, m \neq 0$

(2) $0 < f(1) = 1 + \frac{3+7m}{3m} + 1+5m = \frac{3m+3+7m+3m+15m^2}{3m} = \frac{15m^2+13m+3}{3m}$
 $m > 0$

(3) $0 > f(0) = 1+5m \rightarrow \left[-\frac{1}{5} > m \right]$

תחום המציאות \rightarrow תחום המציאות של המשוואה