

الف) $x^2 = y + 5$ ب) $x^2 = y - 1$	$x = \sqrt{y + 5}$ $x = \sqrt[3]{y - 1}$	$y \geq -5$ $R_f = \mathbb{R}$	۱
الف) $y = x^2 - 4x + 4$ ب) $y = x^2 - 5x + 1$	$y - 4 = (x - 2)^2$ $x - 2 = \sqrt{y - 4}$ $x = \sqrt{y - 4} + 2$	$y \geq 4$ $R_f = [4 + \infty)$ $R_f = \mathbb{R}$	۲
الف) $yx^2 - 2y = x^2 + 4$ ب) $2 x+1 = y x-1 - 4y$	$x^2(y-1) = 2y+4$ $x^2 = \frac{2y+4}{y-1}$ $x = \sqrt{\frac{2y+4}{y-1}}$ $x = \pm \frac{y-1}{y-2}$	$R_f = [-1/2, -1) \cup (1, +\infty)$ $R_f = \mathbb{R} - \{1\}$	۳
$y = \frac{1}{x^2 - 4x}$	$yx^2 - 4yx = 1$ $xy(x-4) = 1$	$x = \frac{1}{y(x-4)}$ $R_f = \mathbb{R} - \{0\}$	۴
الف) $\frac{-b}{ca} = \frac{q}{r} = 3$ ب) $\frac{-b}{ca} = \frac{-f}{-r} = 2$	$\frac{1}{-v}$ $\frac{1}{4}$	$R_f = [-v + \infty)$ $R_f = (-\infty, 4]$	۵

الف) $\frac{-D}{2a} = \frac{4}{1} = 4 \quad | \begin{smallmatrix} 1 & 4 \\ -1 & 1 \end{smallmatrix} \quad R_f = [0 + \infty)$

ب) $\frac{-b}{2a} = \frac{-4}{-1} = 4 \quad | \begin{smallmatrix} 1 & 4 \\ 1 & 1 \end{smallmatrix} \quad R_f = [0, \sqrt{17}]$

ممنون زین رادیکال $\sqrt{17}$

الف) $R_f = \mathbb{R}$

ب) $R_f = [0 + \infty)$

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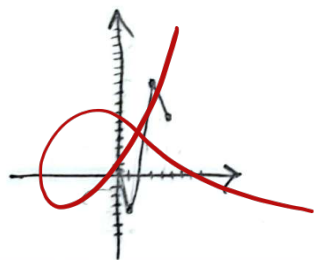
الف) $R_f = \mathbb{R} - \{1\}$

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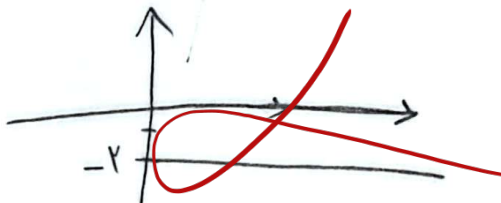
ب) $\frac{a}{c} = 1 \Rightarrow \sqrt{1} = \pm 1 \quad R_f = [0 + \infty) - \{1\}$

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الف) $| \begin{smallmatrix} 1 & 1 \\ 1 & 1 \end{smallmatrix} \quad | \begin{smallmatrix} 1 & 1 \\ 1 & 1 \end{smallmatrix} \quad | \begin{smallmatrix} 1 & 1 \\ 1 & 1 \end{smallmatrix} \quad | \begin{smallmatrix} 1 & 1 \\ 1 & 1 \end{smallmatrix}$



ب) $| \begin{smallmatrix} 1 & 1 \\ 1 & 1 \end{smallmatrix} \quad | \begin{smallmatrix} 1 & 1 \\ 1 & 1 \end{smallmatrix} \quad | \begin{smallmatrix} 1 & 1 \\ 1 & 1 \end{smallmatrix}$



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الف) $R_f = [1 + \infty)$

ب) $\sqrt{x+1/2} \quad R_f = (-\infty, -1/2] \cup [1/2, +\infty)$

$x > 0 \rightarrow (\sqrt{x}, +\infty)$
 $x < 0 \rightarrow (-\infty, \sqrt{-x})$

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