③ a) $3 - \frac{x-1}{2} = \frac{2x-3}{3} + \frac{5-x}{2}$

$\frac{18}{6} - \frac{3(x-1)}{6} = \frac{2(2x-3)}{6} + \frac{3(5-x)}{6}$

$18 - 3x + 3 = 4x - 6 + 15 - 3x$

$-3x - 4x + 3x = -6 + 15 - 18 - 3$

$-4x = -12 \Rightarrow x = \frac{-12}{-4} \Rightarrow \boxed{x = 3}$

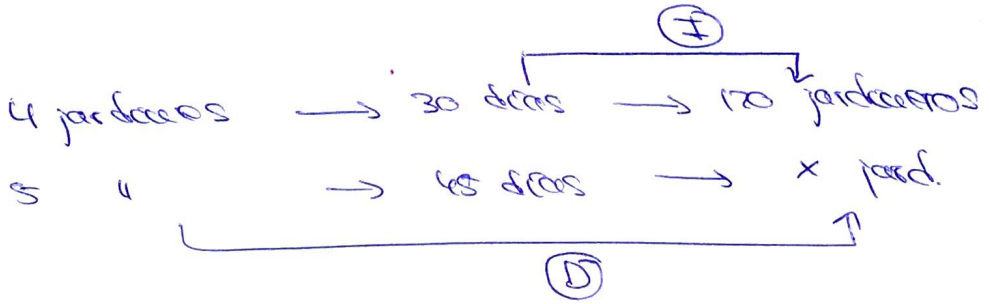
b) $(3x-2)^2 - x(6x-7) = (2x+1)(2x-1) - (x+2)^2 \Rightarrow$

$9x^2 + 4 - 12x - 6x^2 + 7x = 4x^2 - 1 - (x^2 + 4 + 4x) \Rightarrow$

$9x^2 + 4 - 12x - 6x^2 + 7x - 4x^2 + 1 + x^2 + 4 + 4x = 0$

$-x + 9 = 0 \Rightarrow \boxed{x = 9}$

④



$\frac{4}{5} \cdot \frac{45}{30} = \frac{120}{x} \Rightarrow$

$\frac{4 \cdot 3^3 \cdot 5}{5 \cdot 3 \cdot 2} = \frac{120}{x} \Rightarrow \frac{6}{5} = \frac{120}{x} \Rightarrow 6x = 120 \cdot 5 \Rightarrow$

$x = \frac{6 \cdot 20 \cdot 5}{6} = 100$

Se necesitarán 100 jardineros

⑤ a) $2x^2 - 3x - 5 = 0$

$x = \frac{3 \pm \sqrt{9+40}}{4} = \frac{3 \pm 7}{4} = \begin{cases} \rightarrow \frac{10}{4} = \frac{5}{2} \\ \hookrightarrow \frac{-4}{4} = -1 \end{cases}$

$\boxed{x = \frac{5}{2};\ x = -1}$