

5431
~~5322~~

12x 3	4	1	3- 5	2
2÷ 4	2.	60x 5	1	2- 3
14+ 5	3	4	11+ 2	1
2÷ 2	1	3	4.	5
1	5	24x 2	3	4

16. Determine the values of k for which the function $f(x) = 4x^2 - 3x + 2kx + 1$ has ^{one} two zeros. Check these values in the original equation.

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$$b^2 - 4ac = 0$$

$$a = 4$$

$$c = 1$$

$$b = -3 + 2k$$

$$b = 2k - 3$$

$$(2k - 3)^2 - 4(4)(1) = 0$$

$$4k^2 - 12k + 9 - 16 = 0$$

$$4k^2 - 12k - 7 = 0 \quad \text{Q.F.} \quad \text{Calc}$$

$$4k^2 + 2k - 14k - 7 = 0$$



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$$\left(\frac{(x^3 y)^{-1} (x^4 y^3)}{(x^2 y^{-3})^{-2}} \right)^{-1}$$

$$\left(\frac{\begin{pmatrix} -3 & -1 \\ x & y \end{pmatrix} \begin{pmatrix} 4 & 3 \\ x & y \end{pmatrix}}{x^{-4} y^6} \right)^{-1}$$

$$\left(\frac{\begin{matrix} 1 & 2 \\ x & y \end{matrix}}{x^{-4} y^6} \right)^{-1}$$

$$\begin{aligned} &\rightarrow \begin{pmatrix} 5 & -4 \\ x & y \end{pmatrix}^{-1} \\ &= \begin{matrix} -5 & 4 \\ x & y \end{matrix} \\ &= \frac{y}{x^5} \end{aligned}$$

$$\left(\frac{(x^{18})^{\frac{-1}{6}}}{\sqrt[5]{243x^{\frac{10}{5}}}} \right)^{0.5}$$

$$(x^2)^3$$

$$1^4 \left(\frac{x^{-3}}{3x^2} \right)^{0.5}$$

$$= \left(\frac{x^{-5}}{3} \right)^{0.5} = \frac{x^{-2.5}}{3^{0.5}} = \frac{1}{\sqrt{3} x^{2.5}}$$

$$\left(\frac{(6x^3)^2 (6y^3)}{(9xy)^6} \right)^{-\frac{1}{3}}$$

$$\left(\frac{8y^{-3}}{19683} \right)^{-\frac{1}{3}}$$

$$\left(\frac{(36x^6)(6y^3)}{531441x^6y^6} \right)^{-\frac{1}{3}}$$

$$\left(\frac{19683y^{\textcircled{3}}}{8} \right)^{\frac{1}{3}}$$

$$\left(\frac{216x^6y^3}{531441x^6y^6} \right)^{-\frac{1}{3}}$$

$$\frac{27y}{2}$$