

$$\begin{aligned} \vec{r} &= a\vec{b} - b\vec{a} \Rightarrow \vec{a} \times \vec{b} = \vec{b} \times \vec{a} + b\vec{a} \times \vec{a} \\ \vec{a} \times \vec{b} &= (a+b)(\vec{a} \times \vec{b}) - \vec{a} \times \vec{a} \\ r_{\vec{a}} &= r \left(\frac{\vec{a}}{r} - \frac{\vec{a} \times \vec{b}}{r} \right) \\ r_{\vec{a}} &= \vec{a} - \vec{a} \times \vec{b} \\ r_{\vec{b}} &= -\vec{a} \times \vec{b} \\ \vec{a} \times \vec{b} &= 0 \\ \vec{a} \times \vec{b} &= -\vec{b} \times \vec{a} \end{aligned}$$

$$(a^r + b^r)(x^r + y^r) = (ax + by)^r + (ay - bx)^r \quad \text{مطلوبہ}$$

۱) استعمار املاها
 ۲) استعمار املاها
 ۳) استعمار املاها
 ۴) استعمار املاها

$$\chi^2 - 1 = (\chi^2)^{\gamma} - 1^{\gamma} = (\chi^2 - 1)(\chi^2 + \chi^2 + 1) = \underbrace{(\chi^2 - 1)(\chi^2 + \chi^2 + 1)}_{\substack{a=\chi^2 \\ b=1}} = (a-b)(a^2+ab+b^2)$$

$$x^{\epsilon} + x^{\gamma} + 1 = x^{\epsilon} + \underbrace{x^{\gamma} - x^{\gamma} + 1}_{(x^{\gamma} - 1)(x^{\gamma+1} + \dots + 1)} = (x^{\gamma} + 1)^{\gamma} - x^{\gamma} =$$

$$\begin{aligned} x^\varepsilon + \varepsilon &= (x^r + r^\varepsilon + r x^r) - \varepsilon x^r \\ &= (x^r + r)^\varepsilon - (r x^r)^\varepsilon = (x^r + r - r x^r) \left(\frac{x^r + r + r x^r}{x^r + r - r x^r} \right)^\varepsilon \end{aligned}$$

$$\begin{aligned} 1) \quad & x^2 - 9x - 14 - V = \frac{x^2 - 9x - 14 - (x^2 - 2x + 9)}{(x^2 - 2x + 9)} = \frac{x^2 - 9x - 14 - x^2 + 2x - 9}{(x^2 - 2x + 9)} \\ & = (x+y)(x-y) - 14 + x - 9y - 9 - V = (x+y)(x-y) - 14 + x - 9y - 9 - V \\ & = (x+y)(x-y) - V(x+y) + x-y-V = (x+y)(x-y) - V(x+y) + x-y-V \\ & = (x+y)(x-y-V) + (x-y-V) \quad (x+y)(x-y) \\ & = (x-y-V)(x+y+1) \end{aligned}$$

$$\begin{aligned} \text{LHS} &= r_x^r - v_x y + r_y^r \\ &= \overbrace{r_x^r - r_x y} + r_y^r \\ &= r_x(r_x - y) - y(r_x - r_y) = (r_x - y)(r_x - y) \end{aligned}$$

[illegible]

دو تری سیم عیارست

$$\alpha^2 = (\alpha + r)\alpha + \alpha^2 + \alpha^2 + \alpha^2$$

کلمه دتل ددو درلر

$$(\alpha - (\alpha + r))(\alpha - (\alpha + r)) = -(\alpha - \alpha + r)(\alpha - \alpha - r)$$

دو

$$\alpha^2 = (\alpha + r)\alpha + \alpha^2 + \alpha^2 + \alpha^2$$

دو

$$\alpha^2 = (\alpha + r)\alpha + \alpha^2 + \alpha^2 + \alpha^2$$

$$\begin{aligned} & \text{مثال ٢: } (x^2 + x + 1) \div (x + 2) \\ & \begin{array}{r} x^2 + x + 1 \\ \underline{-(x^2 + 2x)} \\ -x + 1 \\ \underline{-(-x - 2)} \\ 3x + 1 \\ \underline{-(3x + 6)} \\ -5 \end{array} \end{aligned}$$