

$$x^3 - 5x^2 + 6x = 0$$

0. m $\circledast x^2 = y \Rightarrow x^4 = y^2$
 $\hookrightarrow (x^2)^3 = y^3 \hookrightarrow x^6 = y^3$

$$x^2 = y \Rightarrow (x^2)^{1/2} = y^{1/2} \quad \neq 1$$

$$x = y^{1/2}$$

$$x^3 - 5x^2 + 6x = 0 \Leftrightarrow$$

$$x(x^2 - 5x + 6) = 0$$

$$x = 0 \quad \vee \quad x^2 - 5x + 6 = 0$$

$$a=1, b=-5, c=6$$

$$\Delta = b^2 - 4ac = (-5)^2 - 4 \cdot 1 \cdot 6 = 25 - 24 = 1$$

$$x_{1,2} = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{5 \pm \sqrt{1}}{2 \cdot 1}$$

$$\frac{5+1}{2} = 3$$

$$\frac{5-1}{2} = 2$$

abu. 15 / $\Sigma \varepsilon \lambda 94$

$$\text{ii) } 4x^4 + 11x^2 - 3 = 0 \quad (2)$$

dim $x^2 = y \Rightarrow (x^2)^2 = y^2 \Leftrightarrow$
 $x^4 = y^2$

$$(2) \Leftrightarrow 4y^2 + 11y - 3 = 0$$

$$\Delta = 0^2 - 4 \cdot (-3) = 12^2 - 44 \cdot (-3) =$$

~~121~~ $121 + 48 \Leftrightarrow$

G7 $\Delta = 169$

$$y_{1,2} = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-11 \pm \sqrt{169}}{2 \cdot 4} =$$

$$\frac{-11 \pm 13}{8} \quad y_1 = \frac{-11 + 13}{8} = \frac{2}{8} = \boxed{\frac{1}{4}}$$

$$y_2 = \frac{-11 - 13}{8} = \frac{-24}{8} = \boxed{-3}$$

$$x^2 = \frac{1}{4} \quad \vee \quad x^2 = -3$$

$$x = \pm \frac{1}{2}$$

28 div 2m

$$X^6 + 6X^3 - 40 = 0$$

Dim $X^3 = Y \Rightarrow (X^3)^2 = Y^2 \Leftrightarrow$
 $X^6 = Y^2$

$$X^4 + 2X^3 + X^2 + 1 = 0$$

Dim $X^2 = Y \Rightarrow (X^2)^2 = Y^2 \Leftrightarrow X^4 = Y^2$

~~$X^3 =$~~

$$\underline{5X^3 - 31X^2 + 31X - 5 = 0}$$

Abu. 15, 11, 12
 14 $\Sigma \lambda. 94$

$$5(X^3 - 1) - 31X(X - 1) = 0 \Leftrightarrow$$

$$5(X - 1)(X^2 + X + 1) - 31X(X - 1) = 0 \neq$$

$$(X - 1) \cdot [5(X^2 + X + 1) - 31X] = 0 \Leftrightarrow$$

$$(X - 1) \cdot (5X^2 + 5X + 5 - 31X) = 0 \neq$$

$$(X - 1) \cdot (5X^2 - 26X + 5) = 0 \Leftrightarrow$$

$$X - 1 = 0 \quad \vee \quad 5X^2 - 26X + 5 = 0$$

$X = 1$

$\Delta \dots$