

$$x^8 - 29x^4 + 100 = 0$$
$$x^8 = (x^4)^2$$

$$u = x^4$$

$$x^4 = 25 \quad x^4 = 4$$

$$\pm \sqrt[4]{25} \quad \pm \sqrt[4]{4}$$

$$\frac{-(-29) \pm \sqrt{(-29)^2 - 4(1)(100)}}{2(1)}$$

$$(x^4)^2 - 29x^4 + 100 = 0$$

$$u^2 - 29u + 100 = 0$$

$$\frac{-25}{-25} * \frac{-4}{-4} = 100$$

$$\frac{-25}{-25} + \frac{-4}{-4} = -29$$

$$(u-25)(u-4) = 0$$

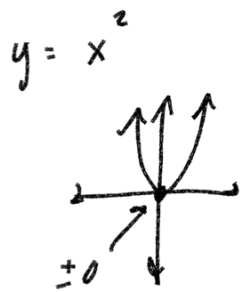
$$u-25=0 \quad u-4=0$$

$$+25 \quad +25 \quad +4 \quad +4$$

$$u=25 \quad u=4$$

$$x^6 + 9x^3 + 8 = 0$$

$$u = x^3$$



$$(x^3)^2 + 9x^3 + 8 = 0$$

$$u+8=0$$

$$-8 \quad -8$$

$$v+1=0$$

$$-1 \quad -1$$

$$u = -8$$

$$v = -1$$

$$u^2 + 9u + 8 = 0$$

$$\sqrt[3]{x^3} = \sqrt[3]{-8}$$

$$\sqrt[3]{x^3} = \sqrt[3]{-1}$$

$$(v+8)(v+1) = 0$$

$$x = \sqrt[3]{-8}$$

$$x = \sqrt[3]{-1}$$

$$(-2)(-2)(-2) = -8$$

$$x = -2$$

$$x = -1$$

$$x^{8/5} - 20x^{4/5} + 64 = 0$$

$$(x^{4/5})^2 - 20x^{4/5} + 64 = 0$$

$$u^2 - 20u + 64 = 0$$

$$u = x^{4/5}$$

$$(u-16)(u-4) = 0$$

$$u-16=0$$

$$+16 \quad +16$$

$$u-4=0$$

$$+4 \quad +4$$

$$u=16$$

$$(x^{4/5})^{5/4} = (16)^{5/4}$$

$$u=4$$

$$(x^{4/5})^{5/4} = (4)^{5/4}$$

$$(\pm 2)^5 = \pm 32$$

$$(\pm \sqrt[4]{4})^5$$

$$5(x-3)^4 + 12(x-3)^2 - 100 = 0$$

$$u = (x-3)^2$$

$$5u^2 + 12u - 100 = 0$$