① $f(x) = x^2 - x + 1$

$f(x) = 0$

$x^2 - x + 1 = 0$

$A = 1 \quad B = -1 \quad C = 1$

$B^2 - 4AC$

$= (-1)^2 - 4 \times 1 \times 1$

$= 1 - 4$

$= -3$

$$x = \frac{-B \pm \sqrt{B^2 - 4AC}}{2A}$$

$$= \frac{1 \pm \sqrt{(-3)}}{2 \times 1} = \frac{-2}{2} = -1$$ //

② $f(x) = x^2 - \sqrt[3]{x}$

$x^2 - \sqrt[3]{x} = 0$

$x^2 - (x)^{1/2} = 0$

~~$x^2 = (x)^{1/2}$~~

$(x)^{4/2} - (x)^{1/2} = 0$

$(x)^{1/2} (x)^{3/2} - (x)^{1/2} = 0$

$(x)^{1/2} (x^{3/2} - 1) = 0$

$\sqrt{x} = 0$ and $x\sqrt{x} = 1$

$x = 0$ // $(\sqrt{x})^3 = 1$

$\sqrt{x} = 1$

$x = 1$ //

(3) $f(x) = x^2 - 20x$

$x^2 - 20x = 0$

$x(x - 20) = 0$

$x = 0$ or $x = 20$ //

(4) $f(x, y) = x^2 + y^2 - 2xy$

$x^2 + y^2 - 2xy = 0$

$(x - y)^2 = 0$

$(x - y)(x - y) = 0$

$x = y, x = y$ //