

Difference of Cubes:

$$F^3 - L^3 = (F - L)(F^2 + FL + L^2)$$

bi ↑

$$\textcircled{a} \quad c^3 - 1000 = (c - 10)(c^2 + 10c + 100)$$

$$\begin{array}{ccc} \downarrow & & \downarrow \\ (c)^3 & & (10)^3 \\ F & & L \end{array}$$

$$\textcircled{b} \quad y^5 - x^3 y^5 \quad \text{gcf: } y^5$$

$$\begin{array}{ccc} y^5 (1 - x^3) & & \\ \downarrow & & \downarrow \\ (1)^3 & & (x)^3 \\ F & & L \end{array}$$

$$= y^5 (1 - x)(1 + x + x^2)$$