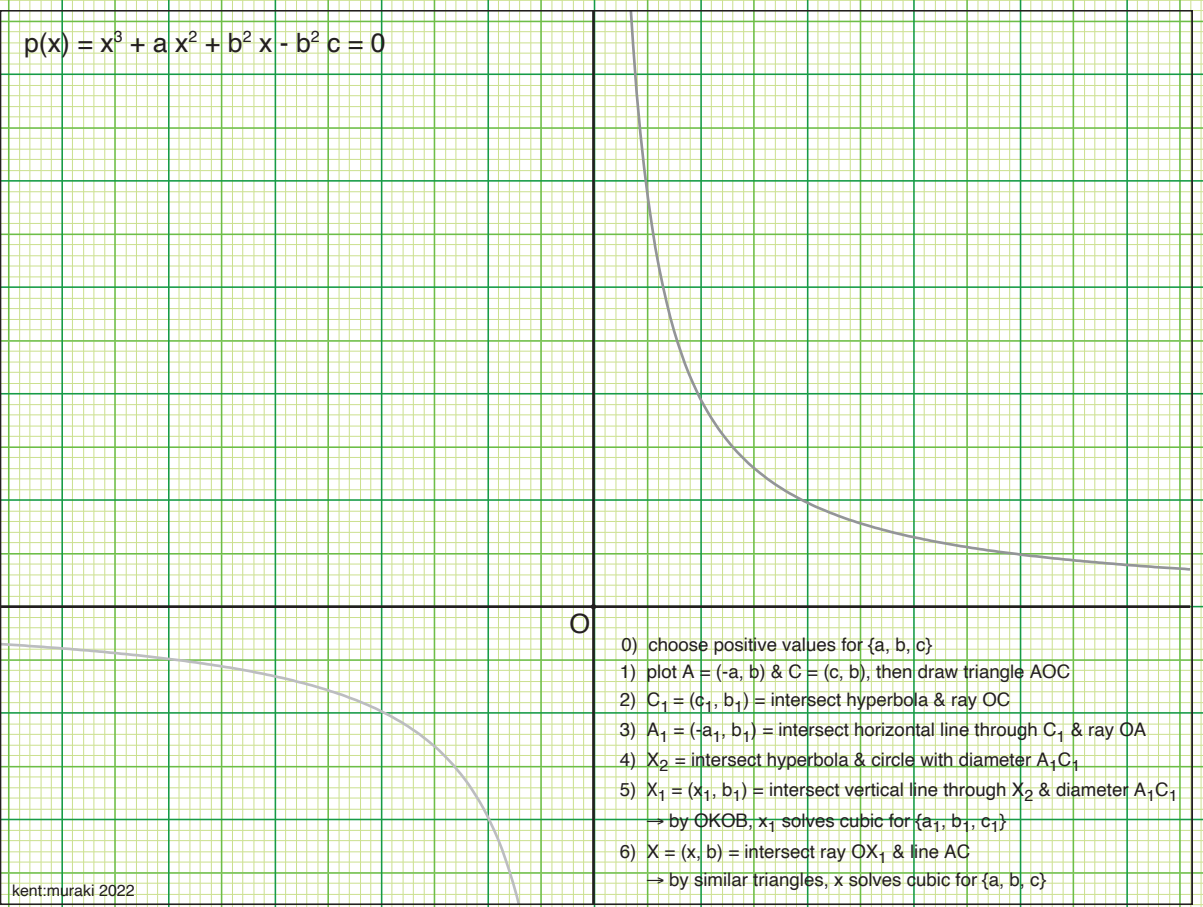


$$p(x) = x^3 + a x^2 + b^2 x - b^2 c = 0$$



O

- 0) choose positive values for  $\{a, b, c\}$
- 1) plot  $A = (-a, b)$  &  $C = (c, b)$ , then draw triangle  $AOC$
- 2)  $C_1 = (c_1, b_1) =$  intersect hyperbola & ray  $OC$
- 3)  $A_1 = (-a_1, b_1) =$  intersect horizontal line through  $C_1$  & ray  $OA$
- 4)  $X_2 =$  intersect hyperbola & circle with diameter  $A_1C_1$
- 5)  $X_1 = (x_1, b_1) =$  intersect vertical line through  $X_2$  & diameter  $A_1C_1$   
 $\rightarrow$  by  $OKOB$ ,  $x_1$  solves cubic for  $\{a_1, b_1, c_1\}$
- 6)  $X = (x, b) =$  intersect ray  $OX_1$  & line  $AC$   
 $\rightarrow$  by similar triangles,  $x$  solves cubic for  $\{a, b, c\}$