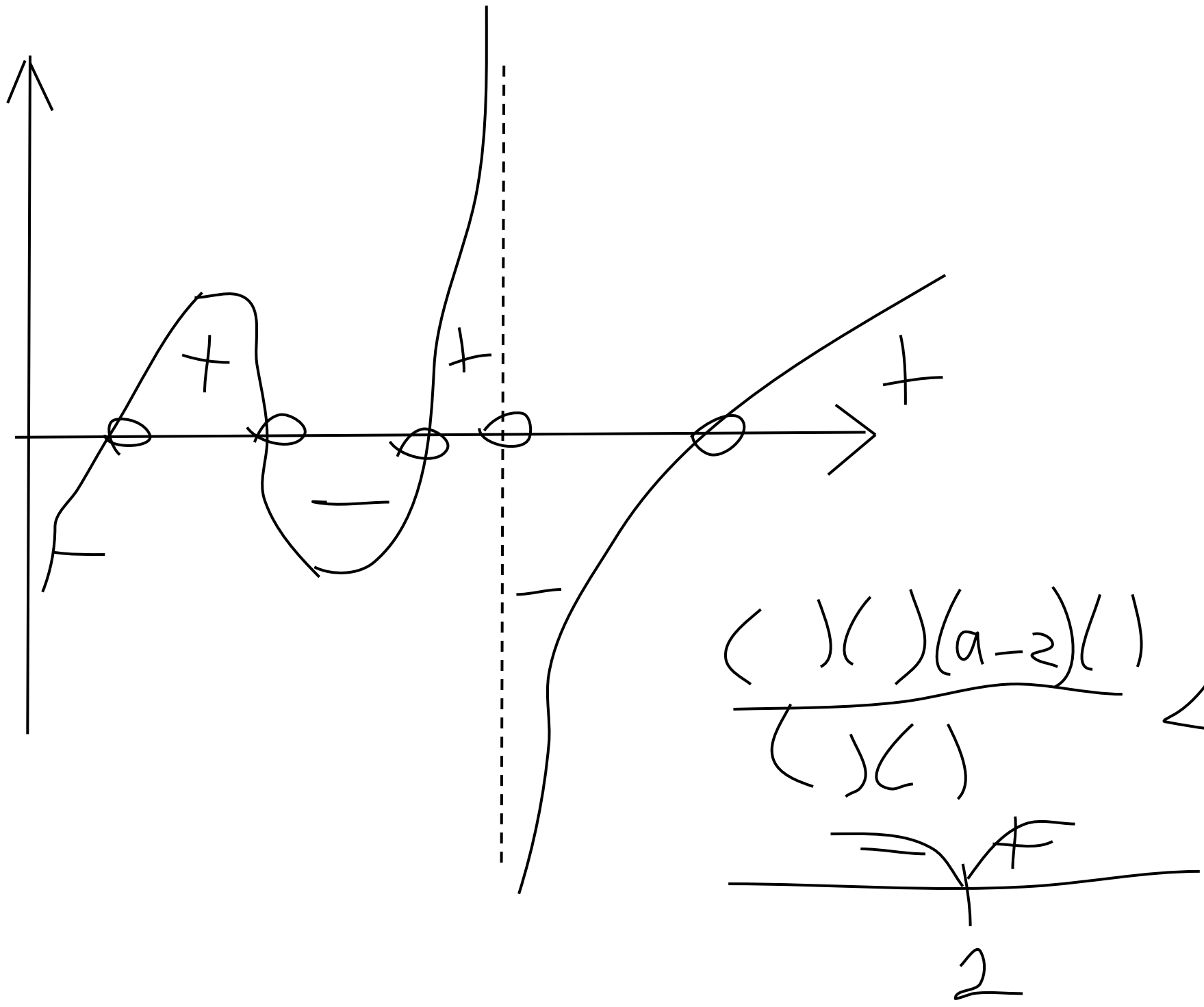


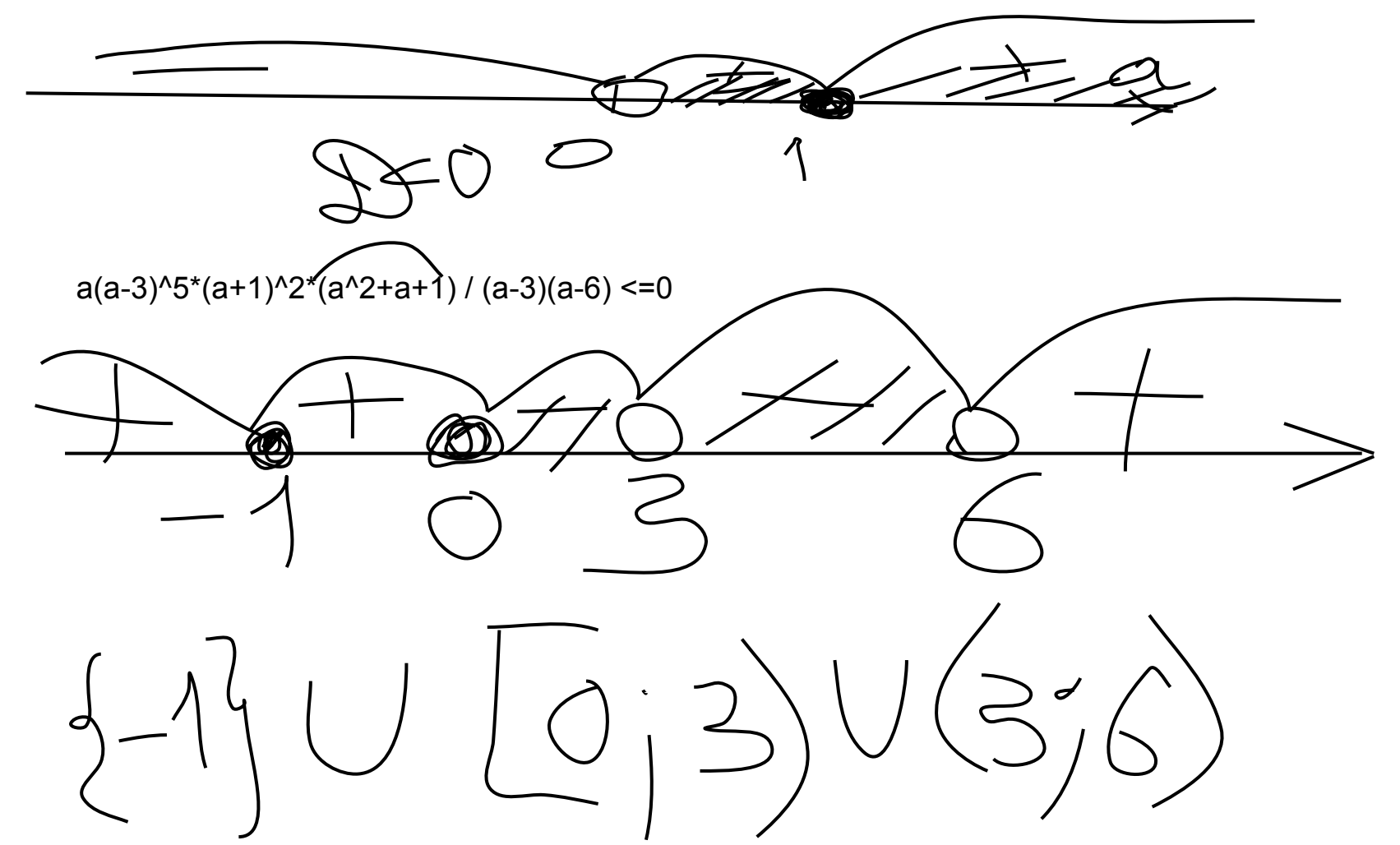
$$\begin{aligned} \cos^4 x + \cos^4 x &= 1 + \cos 2x - 2\sin^2 2x \\ \cos^4 x + \cos^4 x &= \cos 2x + \cos 4x \\ \cos^4 x + \cos^4 x &= 2\cos(3x)\cos(x) \end{aligned}$$

$$a + \frac{1}{a} \geq 2$$

$$\begin{aligned} (a^2 - 2a + 1)/a &\geq 0 \\ D/4 = 1 - 1 &= 0 \\ x &= 1 \\ (a - 1)^2/a &\geq 0 \\ a &> 0 \end{aligned}$$



$$\frac{(\quad)(\quad)(a-2)(1)}{(\quad)(\quad)} < 0$$



$$a(a-3)^5(a+1)^2(a^2+a+1)/(a-3)(a-6) \leq 0$$

$$\{-1\} \cup [0, 3) \cup (3, 6)$$