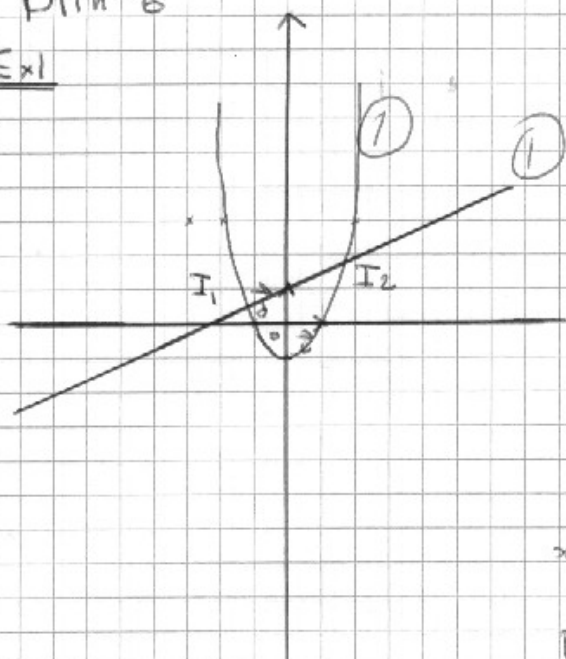


Ex1



$$② \quad x^2 - 1 = \frac{1}{2}x + 1$$

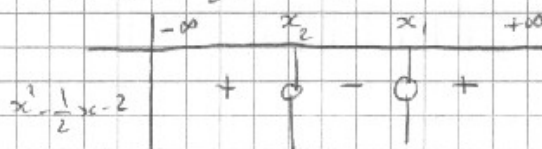
$$x^2 - \frac{1}{2}x - 2 = 0$$

$$\Delta = \frac{33}{4}$$

$$x_1 = \frac{\frac{1}{2} + \sqrt{\frac{33}{4}}}{2} = \frac{1}{4} + \frac{\sqrt{33}}{4}$$

$$x_2 = \frac{\frac{1}{2} - \sqrt{\frac{33}{4}}}{2} = \frac{1 - \sqrt{33}}{4}$$

$$④ \quad f(x) - g = x^2 - \frac{1}{2}x - 2$$



Donc (f) est au dessus de (g) sur $]-\infty; x_2[$ et $x_1; +\infty[$
et en dessous ailleurs.

Ex2.

$$1. (2-3i)(4+3i)(-2+i) = (8+6i-12i+9)(-2+i) = (17-6i)(-2+i) = -34+17i+12i+6 = -28+29i \quad ②$$

$$2. \frac{4+7i}{2+3i} = \frac{(4+7i)(2-3i)}{4+9} = \frac{8-12i+14i-21}{13} = -1+2i \quad ②$$

$$3. \left(\frac{2-i}{2i-3}\right)^2 = \left(\frac{(2-i)(2i+3)}{+13}\right)^2 = \left(\frac{-4i-6-2+3i}{13}\right)^2 = \left(\frac{-8-i}{13}\right)^2 = \frac{64}{169} - \frac{1}{169} + \frac{16i}{169} = \frac{63}{169} + \frac{16i}{169} \quad ③$$

$$4. \frac{6-3i+4i+2}{4i-16+1+4i} = \frac{(8+i)(-15-8i)}{(-15+8i)(-15-8i)} = \frac{-120-64i-15i+8}{225+64} = \frac{-112}{289} + i\frac{-79}{289} \quad ③$$

$$5. (-4+2i)^2(-4+2i) = (-16-4-16i)(-4+2i) = (-20-16i)(-4+2i) = -48+24i+64i+32 = -16+88i \quad ③$$