

$$f(x) = (x-c) \cdot g$$

$$f = (g) \cdot g + (r) \quad \text{str } r < \text{str}(g)$$

$$\underline{30 = 2 \cdot 3 \cdot 5}$$

$$75 = 3 \cdot 5^2$$

$$\text{nsd}(30, 75) = 2^0 \cdot 3^1 \cdot 5^1 = 15$$

$$\underline{75 = 30 \cdot 2 + 15} \quad 15 = 75 - 2 \cdot 30$$

$$\text{nsd}(75, 30) = \text{nsd}(30, 15)$$

5 2-9:52

$$\overline{z_1 \cdot z_2} = \overline{z_1} \cdot \overline{z_2}$$

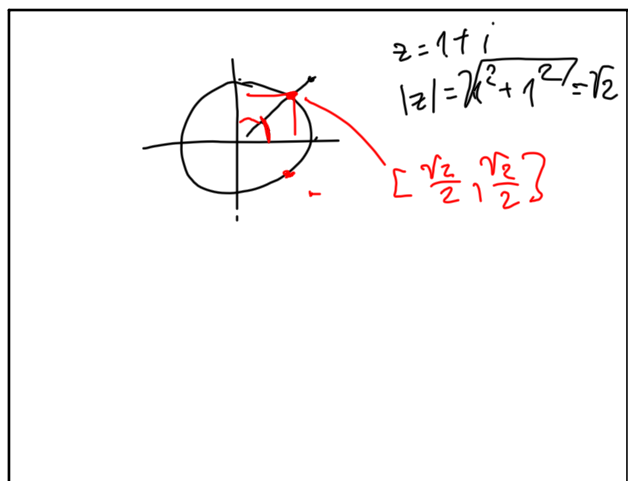
$$\overline{z_1 + z_2} = \overline{z_1} + \overline{z_2}$$

$$= f = a_n x^n + a_{n-1} x^{n-1} + \dots + a_1 x + a_0$$

$$0 = f(y) = a_n 0^n + a_{n-1} c^{n-1} + \dots + a_1 c + a_0$$

$$0 = f(\overline{c})$$

5 2-10:16



5 2-11:30

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

$$x_n = cn + d$$

$$c(n+2) + d = c(n+1) + d + 2(cn + d)$$

$$0 = n(2c - 1) - 2c + c + 2d$$

$$0 = \underbrace{(2c - 1)}_0 n + \underbrace{(2d - c)}_0$$

$$c = \frac{1}{2} \quad d = \frac{1}{4}$$

5 2-11:39