$$(x-1)(x^2+x+1)(x^6+bx^3+1)(x^6-(b-1)x^3+1)$$

$$x^4+x^3+x^2+x+1 = (y^2+by+1)(y^2-(b-1)y+1)$$

$$b = \frac{1\pm\sqrt{5}}{2}$$

$$a^5 - 1 = (a-1)(\ldots)$$

$$a^3 - 1 = (a-1)(\ldots)$$

$$x^{15} - 1 = (x^3 - 1)(\ldots)$$

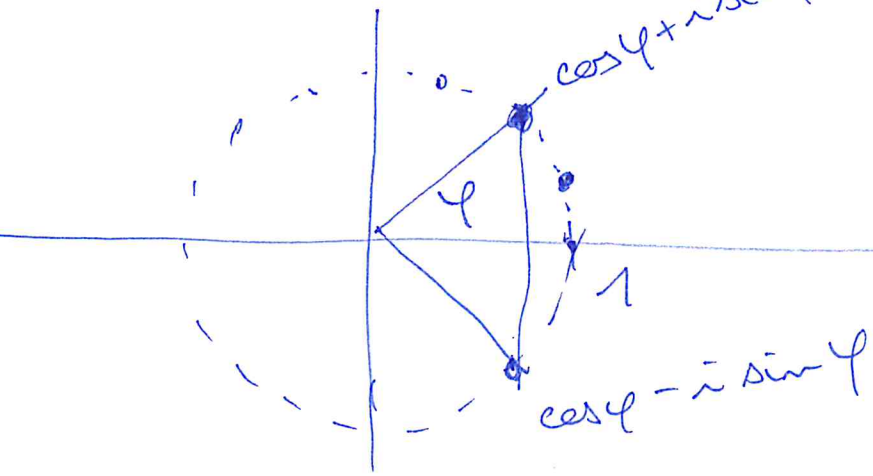
$$(x-1)(x^2+x+1)(x^{12}+x^9+x^6+x^3+1)$$

$$(x-1)(x^4+x^3+x^2+x+1)(x^{10}+x^5+1)$$

$$(x^{10}+x^5+1) : (x^2+x+1) = \ldots$$

$x^{15} = 1$

$z^4 = i$



$$\frac{360^\circ}{15} = 24 \qquad \frac{2\pi}{15}$$

$$(x-(\cos\varphi+i\sin\varphi))(x-(\cos\varphi-i\sin\varphi)$$

$$= x^2 - 2\cos\varphi\, x + 1$$