

1.8 ΕΚΠ - ΜΚΔ

Δευτέρα, 24 Ιανουαρίου 2022

5:09 μμ

$$63 = 3^2 \cdot 7$$

$$24 = 2^3 \cdot 3$$

$$ΕΚΠ(63, 24) = 2^3 \cdot 3^2 \cdot 7$$

$$ΜΚΔ(63, 24) = 3$$

$$Α(x) = x(x+1)(x+2)$$

$$Β(x) = x^3(x+2)^2$$

$$ΕΚΠ(A(x), B(x)) = x^3(x+1)(x+2)^2$$

$$ΜΚΔ(A(x), B(x)) = x^2(x+2)$$

Άσκηση 2 6 ες. 70

$$α) Α(x) = 6(x^2 - y^2) = 2 \cdot 3(x-y)(x+y)$$

ΔΕΝ ΕΙΝΑΙ ΠΑΡΑΓΟΝΤΟΠΟΙΗΜΕΝΟ

$$Β(x) = 4(x-y)^2 = 2^2(x-y)^2$$

$$Γ(x) = 12(x-y)^3 = 2^2 \cdot 3(x-y)^3$$

$$ΕΚΠ(A(x), B(x), Γ(x)) = 2^2 \cdot 3(x-y)^2(x+y)^3$$

$$= 12(x-y)^2(x+y)^3$$

$$ΜΚΔ(A(x), B(x), Γ(x)) = 2 \cdot 3(x-y)$$

$$= 6(x-y)$$

$$\beta) \quad A(a) = a^2 - 3a + 2 = a^2 - a - 2a + 2 = (a-1)(a-2)$$

$$B(a) = a^2 - 4 = (a-2)(a+2)$$

$$\Gamma(a) = a^3 - 4a = a(a^2 - 4) = a(a-2)(a+2)$$

$$EK\pi(A(a), B(a), \Gamma(a)) = a(a-2)(a+2)(a-1)$$

$$MKD(A(a), B(a), \Gamma(a)) = a-2$$

$$\gamma) \quad a^3 - a^2 = a^2(a-1)$$

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

$$a^3 - 2a^2 + a = a(a^2 - 2a + 1) = a(a-1)^2$$

ταυτοτητα

$$EK\pi = a^2(a-1)^2(a+1)$$

$$MKD = a(a-1)$$