

1. Polynomien summa ja erotus

Esim.

$$2x^3 - 5x^2 + 4x - 7$$

- 3. asteen polynomi, asteluku: 3
- termit: $2x^3$ (3. asteen termi)
- $-5x^2$ (2. — " —)
- $4x$ (1. — " —)
- -7 (vakiotermit)
- kertoimet: 2 (3. asteen termin kerroin)
- -5 (2. — " —)
- 4 (1. — " —)

Erillisluokitus:

termien lkm	nimitys	esim.
1	monomi	$5x$
2	binomi	$3x^5 - 4x$
3	trinomi	$5x^4 - 2x + 1$

$$1.6 \text{ a) } (3x^2 + 4x - 7) + (-x^2 + 8) = (3x^2 - x^2) + 4x + (-7 + 8)$$

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

$$b) (4x + 3) - (-3x - 5) = 4x + 3 + 3x + 5 = 7x + 8$$

$$1.9 \quad 5 + 7 = 12 = 3 \cdot 4 \quad \%$$

$$9 + 11 = 20 = 5 \cdot 4 \quad \%$$

⋮

$$\text{yleisesti: } (2m+1) + (2m+3) = 4m+4 = \underbrace{4(m+1)}_{\in \mathbb{Z}} \quad \text{on jaollinen 4:llä}$$

$$1.11 \text{ a) on, b) ei, c) ei, d) on}$$

2. Polynomien tulo

$$2.5 \text{ a) } (x^2 - 3)(4x - 2) = 4x^3 - 2x^2 - 12x + 6$$

$$b) (-6x^2 + 2x)(4x - 3) = -24x^3 + 18x^2 + 8x^2 - 6x$$

$$= -24x^3 + 26x^2 - 6x$$