# Dividing Polynomials – extension

- Organize the division as a fraction of not given as such.
- Organize the numerator and the denominator in such a way that the same variables are written underneath each other. You can also write it as several fractions.
- Reduce the coefficients if possible.
- Apply the laws of exponents.
- If the numerator was a monomial write as a single fraction with positive exponents only.

Examples: Divide the given polynomials

| L1 | $\dfrac{5x^2yz}{15xy^2z^4}=$ |
|---|---|
| L2 | $\dfrac{24ab^3c^4}{8a^2bc^3}=$ |
| L3 | $\dfrac{5x^2y+15xy^3+25x}{5xy}=$ |
| L4 | $\dfrac{2x^2y^3+4xy-6y^2+10x}{2x^2y}=$ |

Examples: Divide the given polynomials

1. $\dfrac{14x^2y + 7xy^2 + 21xy}{7x^2y}$

**2.** $(9a^2bc^4 + 6abc + 3a^2b^2c - 12ab^2) \div (3ab^2c^3)$