

Oberstufe Mathematik

Wiederholung von Grundlagen – 3 - Lösungen

Übungen zur Polynomdivision:

1.	$(x^3 + 5x^2 - x - 1) : (x + 1) = x^2 + 4x - 5 + \frac{4}{x + 1}$
2.	$(3x^3 - x^2 - 3x + 1) : (x - 1) = 3x^2 + 2x - 1$
3.	$(-x^4 + 6x^3 - x^2 - 100) : (x - 5) = -x^3 + x^2 + 4x + 20$
4.	$(x^3 + 1) : (x + 1) = x^2 - x + 1$
5.	$(x^2 - 2ax - 3a^2) : (x + a) = x - 3a$
6.	$(x^3 + 3ax^2 - 4a^3) : (x - 2a) = x^2 + 5ax + 10a^2 + \frac{16a^3}{x - 2a}$
7.	$(x - 3x^2 - 2) : (1 + x) = -3x + 4 - \frac{6}{x + 1}$
8.	$(x^3 + \frac{1}{8}) : (1 + 2x) = \frac{x^2}{2} - \frac{x}{2} + \frac{1}{8}$
9.	$(x^2 + 2x + 3) : x = x + 2 + \frac{3}{x}$
10.	$(x^2 - 3) : (x + 1) = x - 1 - \frac{2}{x + 1}$