Ganzrationale Funktionen

Stufe 1: Grad, Leitkoeffizient, y-Achsenabschnitt

Name: _____ Datum: _____

Gib den Grad n, den Leitkoeffizienten a_n und den y-Achsenabschnitt f(0) an (online in der Reihenfolge n; a_n; f(0)). Achtung bei Produkten und ungeordneten Termen!

1) $f(x) = \frac{1}{2}x^5 - 3$ _____

2) $f(x) = 4x^6 - 7x^3 + 1$ _____

3) $f(x) = 4x^6 - 3x^4 - 9x^3 + 7x$ _____

4) $f(x) = 4x^4 - 3x$ _____

5) $f(x) = -2x^6 - 5x^5 - 6$ _____

6) $f(x) = -3x^3 + x^2 - 4x + 6$ _____

7) $f(x) = -5x + \frac{1}{2}x^2$ _____

8) $f(x) = 4 + 4x^2$ _____

9) $f(x) = 7x^2 + 4x^4 - x^6$ _____

10) $f(x) = -3x^3 - 4x$ _____

11) $f(x) = 3x^2 + 8 - x$ _____

12) $f(x) = (2x + 5)(x - 3)$ _____

13) $f(x) = x^2(-5 - 2x)$ _____

14) $f(x) = -x^6 + 5x^4 + 2$ _____

15) $f(x) = (-x + 5)(2x - 4)(-5 - 3x)$ _____

Lösungen: Ganzrationale Funktionen

Stufe 1: Grad, Leitkoeffizient, y-Achsenabschnitt

1) $n = 5,\ a_5 = \frac{1}{2},\ f(0) = -3$

2) $n = 6,\ a_6 = 4,\ f(0) = 1$

3) $n = 6,\ a_6 = 4,\ f(0) = 0$

4) $n = 4,\ a_4 = 4,\ f(0) = 0$

5) $n = 6,\ a_6 = -2,\ f(0) = -6$

6) $n = 3,\ a_3 = -3,\ f(0) = 6$

7) $n = 2,\ a_2 = \frac{1}{2},\ f(0) = 0$

8) $n = 2,\ a_2 = 4,\ f(0) = 4$

9) $n = 6,\ a_6 = -1,\ f(0) = 0$

10) $n = 3,\ a_3 = -3,\ f(0) = 0$

11) $n = 2,\ a_2 = 3,\ f(0) = 8$

12) $n = 2,\ a_2 = 2,\ f(0) = -15$

13) $n = 3,\ a_3 = -2,\ f(0) = 0$

14) $n = 6,\ a_6 = -1,\ f(0) = 2$

15) $n = 3,\ a_3 = 6,\ f(0) = 100$