

Lösungen Test O4

- 1 a) $\frac{10a}{b^3c^{97}}$ b) 1 c) $\frac{a+c}{ac}$
- 2 a) $\frac{4c^2 - 9a}{6a^2bc^2}$ b) $\frac{-y}{x^2 - y^2}$ c) $\frac{1}{a-b}$
- 3 a) $\frac{3y - 2z}{4xyz}$ b) $a + b$ c) $-\frac{1}{2}$
- 4 a) $\frac{x - 3y}{2(x+y)(x-y)^2}$ b) $\frac{2p^2 - 6pq + 4q^2 + 3}{3(p-q)^2}$
- 5 a) $\frac{ab}{c^2}$ b) $\frac{(c-a)(x+y) + ac}{ac(x+y)}$
- 6 a) $D = \mathbb{R}, a = 17$ b) $D = \mathbb{R}, z = \frac{11}{9}$
- 7 a) $D = \mathbb{R} \setminus \{0\}, L = \{5\}$ b) $D = \mathbb{R} \setminus \{\pm 3\}, L = \{-2\}$
- 8 a) $D = \mathbb{R} \setminus \{0\}, L = \left\{\frac{22}{3}\right\}$ b) $D = \mathbb{R} \setminus \{-5, 1\}, L = \{-3\}$
- 9 a) $D = \mathbb{R} \setminus \{0\}, L = \{\pm 1\}$ b) $D = \mathbb{R} \setminus \{0, 1\}, L = \{1, -\frac{1}{3}\}$
- 10 $\frac{1}{x} \cdot \frac{1}{2} x^2 = \frac{x}{3} + 1 \Rightarrow x = 6$