

## DIE AUFGABEN

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$$1 \quad \frac{28a - 35b}{21} =$$

$$2 \quad \frac{5x + 5y}{25x + 25y} =$$

$$3 \quad \frac{8a + 16b}{24a - 8b} =$$

$$4 \quad \frac{36}{9a - 18b} =$$

$$5 \quad \frac{ac}{ab + ac} =$$

$$6 \quad \frac{7x - 7y}{xy - x^2} =$$

$$7 \quad \frac{x^2 + xy}{xy} =$$

$$8 \quad \frac{360c^2 - 90c}{45c} =$$

$$9 \quad \frac{-b}{b^2 + b} =$$

$$10 \quad \frac{x^2y^3 - x^4y^2}{x^6y - x^4y^2} =$$

$$11 \quad \frac{92a + 46b}{23} =$$

$$12 \quad \frac{25}{5x + 10} =$$

$$13 \quad \frac{2mn - 2m^2}{5m - 5n} =$$

$$14 \quad \frac{18a^2bc}{18a^2b^2c + 54a^2bc^2} =$$

$$15 \quad \frac{rs + rt}{sx + tx} =$$

## DIE LÖSUNGEN

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$$1 \quad \frac{28a - 35b}{21} = \frac{7(4a - 5b)}{21} = \frac{4a - 5b}{3}$$

$$2 \quad \frac{5x + 5y}{25x + 25y} = \frac{5(x + y)}{25(x + y)} = \frac{1}{5}$$

$$3 \quad \frac{8a + 16b}{24a - 8b} = \frac{8(a + 2b)}{8(3a - b)} = \frac{a + 2b}{3a - b}$$

$$4 \quad \frac{36}{9a - 18b} = \frac{36}{9(a - 2b)} = \frac{4}{a - 2b}$$

$$5 \quad \frac{ac}{ab + ac} = \frac{ac}{a(b + c)} = \frac{c}{b + c}$$

$$6 \quad \frac{7x - 7y}{xy - x^2} = \frac{7(x - y)}{x(y - x)} = \frac{7(x - y)}{-x(-y + x)} = -\frac{7}{x}$$

$$7 \quad \frac{x^2 + xy}{xy} = \frac{x(x + y)}{xy} = \frac{x + y}{y}$$

$$8 \quad \frac{360c^2 - 90c}{45c} = \frac{45c(8c - 2)}{45c} = 8c - 2$$

$$9 \quad \frac{-b}{b^2 + b} = \frac{-b}{b(b + 1)} = -\frac{1}{b + 1}$$

$$10 \quad \frac{x^2y^3 - x^4y^2}{x^6y - x^4y^2} = \frac{x^2y^2(y - x^2)}{x^4y(x^2 - y)} = \frac{-x^2y^2(-y + x^2)}{x^4y(x^2 - y)} = -\frac{y}{x^2}$$

$$11 \quad \frac{92a + 46b}{23} = \frac{46(2a + b)}{23} = 2(2a + b)$$

$$12 \quad \frac{25}{5x + 10} = \frac{25}{5(x + 2)} = \frac{5}{x + 2}$$

$$13 \quad \frac{2mn - 2m^2}{5m - 5n} = \frac{2m(n - m)}{-5(-m + n)} = -\frac{2m}{5}$$

$$14 \quad \frac{18a^2bc}{18a^2b^2c + 54a^2bc^2} = \frac{18a^2bc}{18a^2bc(b + 3c)} = \frac{1}{b + 3c}$$

$$15 \quad \frac{rs + rt}{sx + tx} = \frac{r(s + t)}{x(s + t)} = \frac{r}{x}$$

**Immer zuerst ausklammern!**

Hier und da hilft es eine negative Zahl auszuklammern (6, 10, 13)

Nenner, die 1 sind, weglassen! (8, 11)