



Bruchterme

Kürzen

$$1. \quad \frac{4ab}{6bc} \underset{\substack{\text{mit } 2b \\ \text{kürzen}}}{=} \frac{2a}{3c}$$

$$2. \quad \frac{4+2a}{6} = \frac{2(2+a)}{6} \underset{\substack{\text{mit } 2 \\ \text{kürzen}}}{=} \frac{2+a}{3}$$

$$3. \quad \frac{8}{12-18b} = \frac{8}{6(2-3b)} \underset{\substack{\text{mit } 2 \\ \text{kürzen}}}{=} \frac{4}{3(2-3b)} = \frac{4}{6-9b}$$

$$4. \quad \frac{15-5c}{6-2c} = \frac{5(3-c)}{2(3-c)} \underset{\substack{\text{mit } 3-c \\ \text{kürzen}}}{=} \frac{5}{2}$$

Erweitern

$$1. \quad \frac{1}{a} + \frac{2}{3} = \frac{3}{3a} + \frac{2a}{3a} = \frac{3+2a}{3a}$$

$$2. \quad \frac{4a}{a+2} + \frac{3}{2b-1} = \frac{4a(2b-1)}{(a+2)(2b-1)} + \frac{3(a+2)}{(2b-1)(a+2)} = \frac{4a(2b-1)+3(a+2)}{(2b-1)(a+2)}$$

$$= \frac{8ab-4a+3a+6}{2ba+4b-a-2} = \frac{8ab-a+6}{2ba+4b-a-2}$$

Bruchstriche wirken wie Klammern

$$1. \quad \frac{1}{2} - \frac{3+a}{2} = \frac{1-(3+a)}{2} = \frac{1-3-a}{2} = \frac{-2-a}{2} = \frac{(-1) \cdot 2 + (-1) \cdot a}{2} = \frac{(-1)(2+a)}{2} = -\frac{2+a}{2}$$

