

Lösungen AB 1 KA4

1. Berechne Oberfläche und Volumen ...

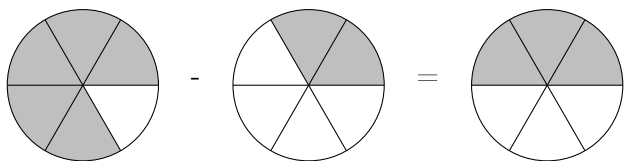
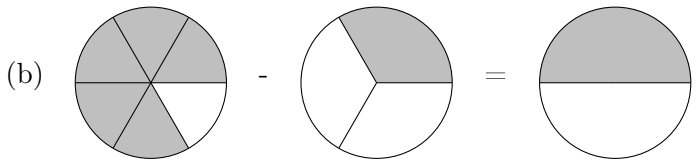
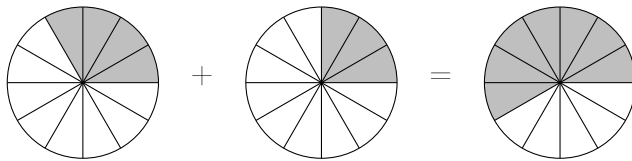
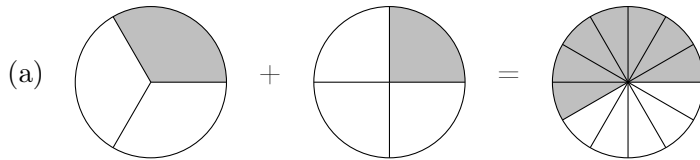
$$(a) \quad O = 6 \cdot a^2 = 6 \cdot 4^2 = 6 \cdot 16 = 96[\text{cm}^2]$$

$$V = a^3 = 4^3 = 64[\text{cm}^3]$$

$$(b) \quad O = 2 \cdot a \cdot b + 2 \cdot a \cdot c + 2 \cdot b \cdot c = 2 \cdot 4 \cdot 5 + 2 \cdot 4 \cdot 2 + 2 \cdot 5 \cdot 2 = 40 + 16 + 20 = 76[\text{cm}^2]$$

$$V = a \cdot b \cdot c = 4 \cdot 5 \cdot 2 = 40[\text{cm}^3]$$

2. Berechne in den Kreisen.



3. Berechne.

$$(a) \quad \frac{1}{2} + \frac{1}{5} = \frac{5}{10} + \frac{2}{10} = \frac{7}{10}$$

$$(b) \quad \frac{1}{3} - \frac{1}{6} = \frac{2}{6} - \frac{1}{6} = \frac{1}{6}$$

$$(c) \quad 1\frac{1}{3} - \frac{1}{4} = \frac{4}{3} - \frac{1}{4} = \frac{16}{12} - \frac{3}{12} = \frac{13}{12} = 1\frac{1}{12}$$

$$(d) \quad \frac{2}{3} + \frac{4}{9} = \frac{6}{9} + \frac{4}{9} = \frac{10}{9} = 1\frac{1}{9}$$

$$(e) \quad 1\frac{1}{3} - \frac{3}{5} = \frac{4}{3} - \frac{3}{5} = \frac{20}{15} - \frac{9}{15} = \frac{11}{15}$$

$$(f) \quad 1\frac{3}{4} + \frac{1}{3} = \frac{7}{4} + \frac{1}{3} = \frac{21}{12} + \frac{4}{12} = \frac{25}{12} = 2\frac{1}{12}$$

$$(g) \quad \frac{4}{7} + \frac{4}{21} = \frac{12}{21} + \frac{4}{21} = \frac{16}{21}$$

$$(h) \quad \frac{13}{15} + \frac{5}{6} = \frac{26}{30} + \frac{25}{30} = \frac{51}{30} = 1\frac{21}{30} = 1\frac{7}{10}$$

4. Schreibe in der in Klammern angegeben Einheit.

$$(a) \quad 4 \text{ cm}^3 = \underline{4000} \text{ mm}^3$$

$$(b) \quad 23000 \text{ dm}^3 = \underline{23} \text{ m}^3$$

$$(c) \quad 1,34 \text{ l} = \underline{1340} \text{ ml}$$

$$(d) \quad 3,43 \text{ cm}^3 = \underline{3,43} \text{ ml}$$

5. Berechne schriftlich.

$$(a) \quad 5,36 + 2,3 + 0,054 + 2 = ,9714$$

$$(c) \quad 1,365 + 0,12 + 213 + 0,005 = 214,490$$

$$(b) \quad 54,208 - 11,03 - 15,68 - 2,068 = 25,430$$

$$(d) \quad 56,325 - 6,02 - 1,0258 - 30,005 = 19,2742$$

6. Multipliziere schriftlich.

$$(a) \quad 0,25 \cdot 5,2 = 1,300$$

$$(c) \quad 0,05 \cdot 12,5 = 0,625$$

$$(e) \quad 132,56 \cdot 52,9 = 7012,424$$

$$(b) \quad 1,205 \cdot 2,4 = 2,8920$$

$$(d) \quad 6,25 \cdot 2,36 = 14,7500$$

$$(f) \quad 2,36 \cdot 4,5 = 10,620$$

$$7. \quad A = a \cdot a = 3,52 \cdot 352 = 123904[\text{cm}^2]$$

$$8. \quad u = 2 \cdot a + 2 \cdot b = 2 \cdot 3,4 + 2 \cdot 3,2 = 6,8 + 6,4 = 13,2[\text{cm}]$$