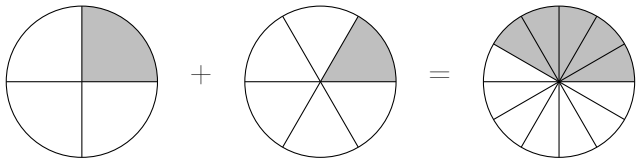
# Lösungen AB 2 KA4

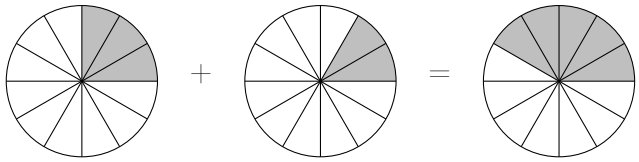
1. Berechne Oberfläche und Volumen ...

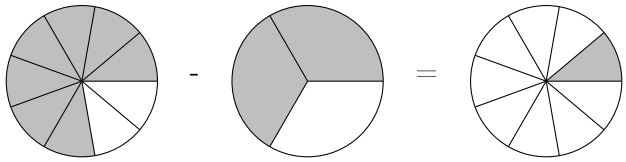
   (a) $O = 2 \cdot a \cdot b + 2 \cdot a \cdot c + 2 \cdot b \cdot c = 2 \cdot 2 \cdot 3 + 2 \cdot 2 \cdot 2 \cdot 4 + 2 \cdot 3 \cdot 4 = 12 + 8 + 24 = 44\text{cm}^2$
   $V = a \cdot b \cdot c = 2 \cdot 3 \cdot 4 = 24[\text{cm}^3]$

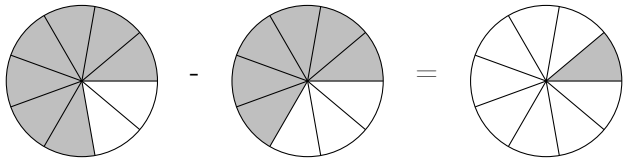
   (b) $O = 6 \cdot a^2 = 6 \cdot 3^2 = 6 \cdot 9 = 54[\text{cm}^2]$
   $V = a^3 = 3^3 = 27\ [\text{cm}^3]$

2. Berechne in den Kreisen.

   (a) 

   (b) 

3. Berechne.

   (a) $\frac{3}{4} + \frac{2}{6} = \frac{9}{12} + \frac{4}{12} = \frac{13}{12} = 1\frac{1}{12}$
   (b) $\frac{2}{7} + \frac{2}{3} = \frac{6}{21} + \frac{14}{21} = \frac{20}{21}$
   (c) $1\frac{2}{5} - \frac{1}{6} = \frac{7}{5} - \frac{1}{6} = \frac{42}{30} - \frac{5}{30} = \frac{37}{30} = 1\frac{7}{30}$
   (d) $\frac{2}{5} + \frac{1}{3} = \frac{6}{15} + \frac{5}{15} = \frac{11}{15}$
   (e) $1\frac{1}{2} - \frac{2}{5} = \frac{3}{2} - \frac{2}{5} = \frac{15}{10} - \frac{4}{10} = \frac{11}{10} = 1\frac{1}{10}$
   (f) $\frac{2}{9} + \frac{5}{6} = \frac{4}{18} + \frac{15}{18} = \frac{19}{18} = 1\frac{1}{18}$
   (g) $\frac{6}{11} + \frac{4}{5} = \frac{30}{55} + \frac{44}{55} = \frac{74}{55} = 1\frac{19}{55}$
   (h) $\frac{11}{13} + \frac{1}{3} = \frac{33}{39} + \frac{13}{39} = \frac{46}{39} = 1\frac{7}{39}$

4. Schreibe in der in Klammern angegeben Einheit.

   (a) $0,045\ \text{cm}^3 = \underline{0{,}000045}\text{dm}^3$
   (b) $1200\ \text{dm}^3 = \underline{1{,}2}\text{m}^3$
   (c) $0,022\ \text{l} = \underline{22}\text{ml}$
   (d) $12,04\ \text{cm}^3 = \underline{12{,}04}\text{ml}$

5. Berechne schriftlich.

   (a) $25,36 + 12,54 + 0,025 + 31 = 68,925$
   (b) $56,54 - 2,002 - 19 - 3,99 = 31,548$
   (c) $23,254 + 91,354 + 2,036 = 116,644$
   (d) $109,99 - 5,05 - 3,995 - 78,542 - 21 = 1,403$

6. Multipliziere schriftlich.

   (a) $0,9 \cdot 2,6$
   (b) $3,8 \cdot 2,35$
   (c) $35,7 \cdot 2,51$
   (d) $4,12 \cdot 3,215$
   (e) $0,13 \cdot 2,5$
   (f) $9,83 \cdot 3,56$

7. $A = a \cdot b = 27 \cdot 6,4 = 172,8[\text{cm}^2]$

8. $u = 4 \cdot 8,76 = 35,04[\text{cm}]$