

Lösungen AH S. 57 Nr. 1 – 9

S. 57–60

13 Mit Würfeln Quader bauen

- 1 **A** 1 000 dm³
B 1 000 cm³
C 1 000 000 cm³
D 1 000 000 mm³

2 Individuelle Lösungen

- 3 **A** 1 cm **C** 100 cm **E** 50 cm
B 10 cm **D** 20 cm **F** 8 cm

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Kantenlänge [cm]	1	2	3	4	5	6	7	8	9	10
S [cm ²]	6	24	54	96	150	216	294	384	486	600
V [cm ³]	1	8	27	64	125	216	343	512	729	1000
V [dm ³]	0,001	0,008	0,027	0,064	0,125	0,216	0,343	0,512	0,729	1

- 5 **A** 445 cm³ = 0,445 dm³
B 1 006 cm³ = 1,006 dm³
C 1 186 cm³ = 1,186 dm³

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	a	b	c	k Gesamt- kanten- länge	S Oberfläche	V Volumen
A	10 cm	10 cm	110 cm	520 cm	4 600 cm ²	11 000 cm ³
B	12 cm	10 cm	150 cm	688 cm	6 840 cm ²	18 000 cm ³
C	15 cm	10 cm	120 cm	580 cm	6 300 cm ²	18 000 cm ³
D	11 cm	10 cm	100 cm	484 cm	4 420 cm ²	11 000 cm ³
E	14 cm	10 cm	125 cm	596 cm	6 280 cm ²	17 500 cm ³
F	5 m	6 m	7 m	72 m	214 m ²	210 m ³

7 Mögliche Lösungen:

A $S = 88 \text{ cm}^2$

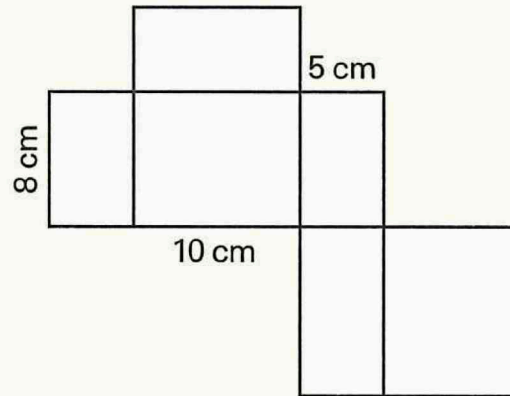
$V = 48 \text{ cm}^3$

B $a = 5 \text{ cm}$

$b = 10 \text{ cm}$

$S = 340 \text{ cm}^2$

$V = 400 \text{ cm}^3$



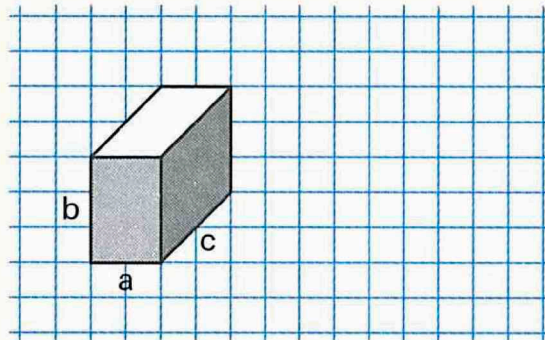
C $a = 2 \text{ cm}$

$b = 3 \text{ cm}$

$c = 4 \text{ cm}$

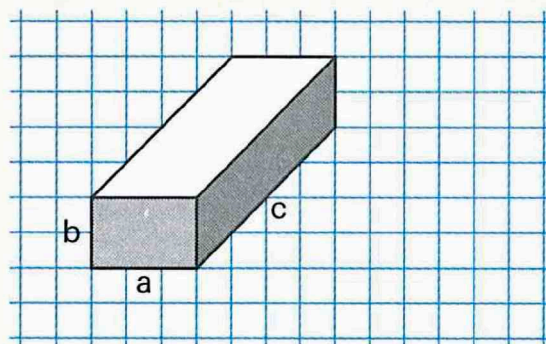
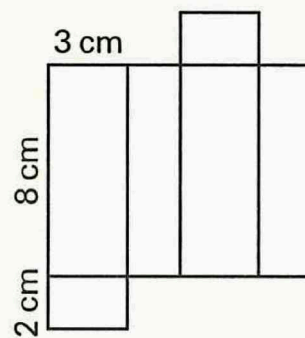
$S = 52 \text{ cm}^2$

$V = 24 \text{ cm}^3$

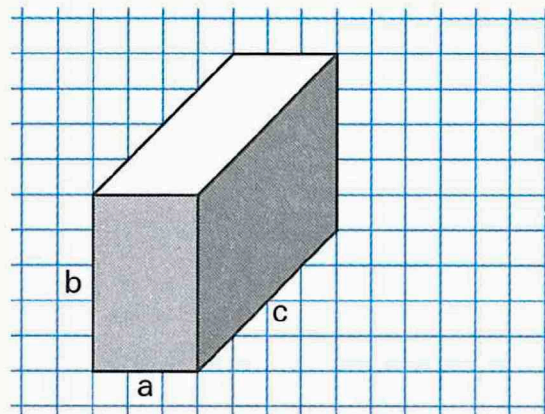
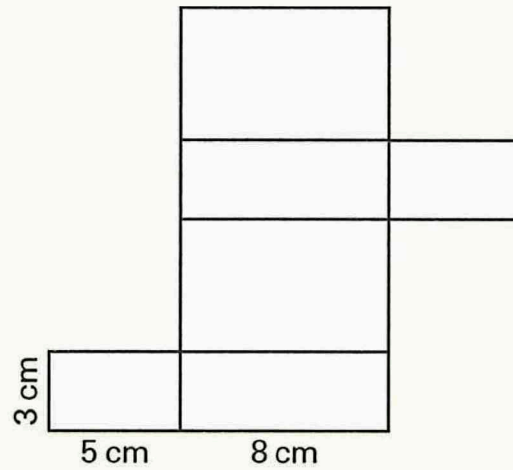


D $a = 3 \text{ cm}$

$b = 2 \text{ cm}$



E $a = 3 \text{ cm}$
 $b = 5 \text{ cm}$
 $c = 8 \text{ cm}$
 $V = 120 \text{ cm}^3$



8 Mögliche Lösungen:

A $a = 8 \text{ cm}$
 $b = 10 \text{ cm}$
 $c = 12,5 \text{ cm}$

B $a = 100 \text{ cm}$
 $b = 50 \text{ cm}$
 $c = 0,2 \text{ cm}$

9 Mögliche Lösungen:

A $a = 2 \text{ dm}$	B $a = 2 \text{ dm}$
$b = 2 \text{ dm}$	$b = 0,01 \text{ dm}$
$c = 2 \text{ dm}$	$c = 5,96 \text{ dm}$