

Worksheet

12/06/2020

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Problem quickname: 6031

1)

For every shape on the left-hand side, find the correct formula for the mentioned property on the right-hand side.

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	Shape			Volume
A	A pyramid	→	3	$V = a \cdot b \cdot c$
B	A sphere	→	5	$V = \frac{4}{3} \cdot \pi \cdot r^3$
C	A regular tetrahedron	→	6	$V = \frac{a^3}{12} \cdot \sqrt{2}$
D	A cube	→	1	$V = a^3$
E	A prism	→	4	$V = A(\text{Grundfläche}) \cdot h$
F	A cylinder	→	2	$V = \pi \cdot r^2 \cdot h$

2)

For every shape on the left-hand side, find the correct formula for the mentioned

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property on the right-hand side.

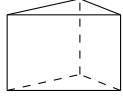
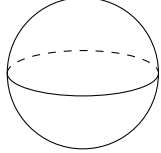
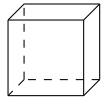
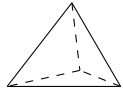


Shape		Surface area	
A	A prism	→ 3	$A = 2 \cdot A(\text{Grundfläche}) + h \cdot (a + b + c)$
B	A cylinder	→ 4	$A = 2 \cdot \pi r^2 + 2 \cdot \pi \cdot r \cdot h$
C	A square pyramid	→ 6	$A = a^2 + a \cdot \sqrt{4 \cdot h^2 + a^2}$
D	A sphere	→ 1	$A = 4 \cdot \pi \cdot r^2$
E	A pyramid	→ 2	$A = 2 \cdot (a \cdot b + a \cdot c + b \cdot c)$
F	A cube	→ 5	$A = 6 \cdot a^2$

3)

For every shape on the left-hand side, find the correct formula for the mentioned

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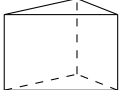




	Shape		Surface area
A		→ 3	$A = 2 \cdot A(\text{Grundfläche}) + h \cdot (a + b + c)$
B		→ 1	$A = 4 \cdot \pi \cdot r^2$
C		→ 5	$A = 6 \cdot a^2$
D		→ 2	$A = a^2 \cdot \sqrt{3}$
E		→ 6	$A = a^2 + a \cdot \sqrt{4 \cdot h^2 + a^2}$
F		→ 4	$A = r \cdot \pi \cdot (r + s)$

4)

For every shape on the left-hand side, find the correct formula for the mentioned

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property on the right-hand side.

Shape		Volume	
A		→ 2	$V = \frac{a^3}{12} \cdot \sqrt{2}$
B		→ 6	$V = A(\text{Grundfläche}) \cdot h$
C		→ 4	$V = \frac{1}{3} \cdot a^2 \cdot h$
D		→ 5	$V = \frac{1}{3} \cdot \pi \cdot r^2 \cdot h$
E		→ 1	$V = a^3$
F		→ 3	$V = \pi \cdot r^2 \cdot h$

Good Luck!