Englische Übungen zu Potenzen

1. Solve without a calculator.

a. $3^3 =$
b. $4^3 =$
c. $2 \cdot 3^2 - 3 \cdot 2^3 =$
d. $(5 \cdot 3 - 10)^2 =$
e. $2^3 - 3 \cdot 2 =$
f. $\left[\frac{1}{4} \cdot (5-3)^2\right]^2 =$

2. Find the pairs. Write the correct letter in the gap.

1	$2^3 \cdot 3^2 \cdot 5^2$	
2	$4 \cdot 4 \cdot 5 \cdot 5 \cdot 7 \cdot 7$	
3	$(-4)^3 \cdot 8 \cdot 2^3$	
4	$\left(\frac{1}{3}\right)^5 \cdot 27$	

A	$4^2 \cdot 5^2 \cdot 7^2$
B	360
C	1800
D	$\left(\frac{1}{3}\right)^2$
E	-2^{12}
F	$3 \cdot \frac{1}{3}$

3. Which is smaller, the sum of the squares of 5 and 6 or the square of the sum of 5 and 6?

4. Write as a power of ten!

For example: Ten Hundred: $10 \cdot 10^2 = 10^3$

a. a thousand
b. a million
c. a hundred thousand
d. ten million
e. a hundred million
f. ten thousand

Notice: We say 5×10^4 as five times ten to the power of four.

Vocabulary

Englisch	Deutsch
calculator	Taschenrechner
square	Quadrat
power	Potenz
power of ten	Zehnerpotenz
ten to he power of four	10 hoch vier
Billion	Milliarden

Solutions

1.

a. 27
b. 64
c. 42
d. 25
e. 2
f. 1

2. 1C, 2A, 3E, 4D

3. The sum of the squares of 5 and 6 is smaller than the square of the sum of 5 and 6. (61; 121)

4.

a. 10^3
b. 10^6
c. 10^5
d. 10^7
e. 10^8
f. 10^4