



## 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  $5 \times 10^4$  as five times ten to the power of four.

## Vocabulary

Englisch	Deutsch
calculator	Taschenrechner
square	Quadrat
power	Potenz
power of ten	Zehnerpotenz
ten to the 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. $10^3$ | d. $10^7$ |
| b. $10^6$ | e. $10^8$ |
| c. $10^5$ | f. $10^4$ |

