

POWERS

1. Solve the following problems:

Zephyr is ordering all his school supplies, but he's got so much that he can't sort it out. Each packet contains 15 boxes. Each of the boxes contains 15 pencil cases, and each pencil case has 15 markers. How many markers are there in one pack? How about in 15 packs?



It's Lux's turn in the library and a new book order has arrived for him to put out on the shelves. The library has 15 bookshelves, each with 15 sections, and each section has 15 books. How many books fit on the shelves?



The Avatars have organized a campaign to raise money to help with research and improve renewable energies. They decided to sell boxes of cookies. Each of the 7 classes in 7th grade sold 7 packets. Each packet contained 7 boxes with 7 packets. How many cookies have they sold in total?



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2. Write and calculate the following powers:

- five squared
- three to the power of five
- nine to the power of zero
- one to the power of twelve
- two to the power of seven
- ten to the power of four
- eight to the power of six

3. Express the following products as powers:

$$2 \cdot 2 \cdot 2 =$$

$$7 \cdot 7 \cdot 7 \cdot 7 \cdot 7 =$$

$$12 \cdot 12 \cdot 12 \cdot 12 =$$

$$5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 =$$

$$25 \cdot 25 \cdot 25 \cdot 25 \cdot 25 \cdot 25 =$$