

Using Exponents


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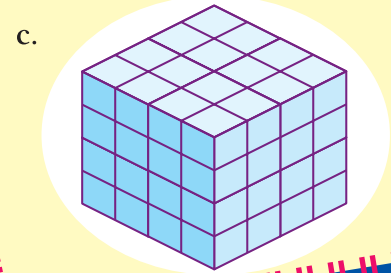
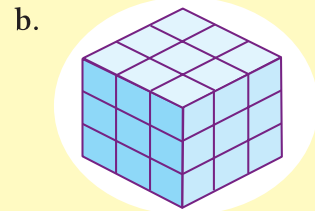
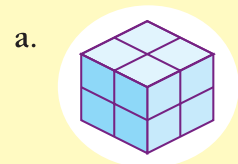
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10₅

Activity

- Melissa put \$1 in the bank at 100% interest per annum. That meant that her money doubled each year that it was left on deposit. After 10 years, she drew out all the money. How much was that?

- How many unit cubes  make up each larger cube below?



- Oti planted an apricot tree on the day his daughter Kiri was born. Every year, he took a photograph of Kiri beside the tree.



- $3^4 = 3 \times 3 \times 3 \times 3$
 $4^2 = 4 \times 4$
 $5^3 = 5 \times 5 \times 5$
 - What does $3^4 + 4^2 + 5^3$ equal? Is that more than $3^3 + 4^4 + 5^5$? How could you know this without calculating the answer?
 - What do you think 10^3 would equal? What about 10^4 ? 10^5 ? 10^6 ?

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Oti noticed that each year, the tree had four times more fruit on it than the year before.

"I wonder how much fruit it will have when Kiri is 5?" he thought.

Can you work it out?

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