

Volume =  $s \times s \times s$  or  $l \times w \times h$

"Prime Factorization"

1. Completely factor each of the following numbers:  
a) 848 925                      b) 7007
2. Find the greatest common factor for each of the following:  
a) 52, 130, 182                      b) 66, 165, 321
3. Find the least common multiple for each of the following:  
a) 3528, 37044                      b) 75625, 190575, 136125
4. Identify if the following numbers are perfect squares, perfect cubes, both, or neither.  
a) 1000                      b) 729                      c) 1715                      d) 11025
5. A developer wants to subdivide a rectangular plot of land measuring 2912m by 1820m into congruent square pieces. What is the side length of the largest possible square?
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6. The Mayan used several different calendar systems; one system used 365 days, another system used 260 days. Suppose the first day of both calendars occurred on the same day. After how many days would they again occur on the same day? About how long is this in years? Assume 1 year has 365 days.
7. A cube has surface area 6534 square feet. What is its volume?
8. Danielle and Chris live in the Northwest Territories in isolation. Food is only delivered to them by plane. Danielle gets her food delivered every 40 days, while Chris gets his food every 90 days. If both people get their food delivered today when will they both get their food delivered on the same day again?
9. The volume of a cube is 21952. What is the surface area?
10. A cube has a SA of 13824 m . Calculate the *volume* of the cube.
11. A cube has a surface area of  $1536\text{m}^2$ . Calculate the volume of the cube.
12. If the surface area of a cube is  $1176\text{m}^2$ , what is the side length?
13. If the volume of a cube is  $1728\text{cm}^3$ , what is the side length?

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12. If the surface area of a cube is 1176 m<sup>2</sup>, what is the side length?
13. If the volume of a cube is 1728cm<sup>3</sup>, what is the side length?
14. A cube has a volume of 10648 m<sup>3</sup>. Calculate the surface area of the cube.
15. A cube has a surface area of 1944m<sup>2</sup>. Calculate the volume of the cube.
16. Determine whether each number is a perfect square, a perfect cube or neither.
- a) 3375    b) 676    c) 1089    d) 13824