1.2 More Exponents

(chapter 3.1 in text)

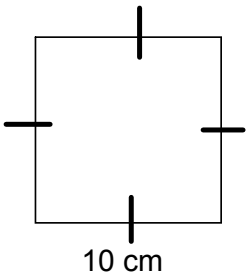
Learning Goal: you will relate your knowledge of powers to area and volume expressions

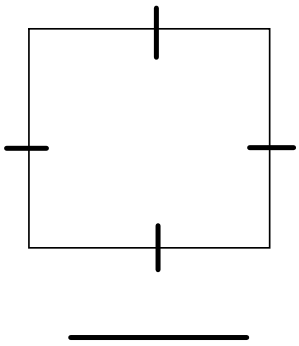
More Exponents!

We can use exponents to help describe algebraic relationships.

Example: Length, which is one dimensional, can be represented by x

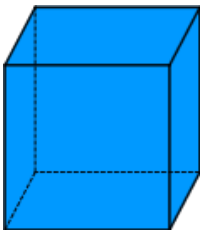
Draw a diagram of a square with side lengths of 10 cm that has had all of its sides increased by the same number





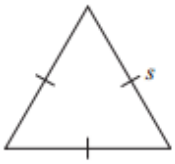
Ex. How could we represent the area of a square with side length x ? Area is two dimensional.

Ex. How can we represent the volume of a cube with side lengths x ? A cube is three dimensional.



Which of the following has a volume that can be represented by s^3?

a



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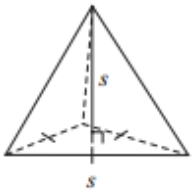

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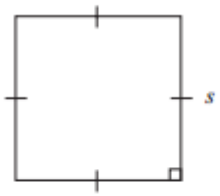

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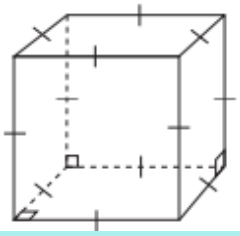

This question is an example of an EQAO question, please visit www.eqao.com to see past tests.

Alysia has selected the letter E to design the logo for her school team, the Eagles. The design will be used to make different-sized crests for clothing such as jackets, sweaters, and baseball caps. The height of the crest is twice the width.

a) Find an expression for the area of the crest in terms of the width.

b) Determine the area of a crest with a width of 8 cm.

c) Determine the height of a crest with an area of 72 cm^2.

Homework, page 108 #6, 7, 8, 10

(pg 17, #1-11)