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1.5.15 Question Help

Think About the Process A company needs to rent a storage space. It is looking at two different sized spaces. Both spaces are cube-shaped. The smaller space has side length 5 feet. The larger space has side length 7 feet. You want to find the difference, in cubic feet, of the two spaces. What is the first step? What is the difference, in cubic feet, of the two spaces? Note that the volume of a cube is s^3 , where s is the side length.

What is the first step in finding the difference, in cubic feet, of the two spaces?

- A. Evaluate the expression for the volume of the larger space.
- B. Evaluate the expression for the area of the wall of the larger space.
- C. Calculate the total area of the walls of the larger space.
- D. Subtract the side lengths of the spaces.

The larger space has more cubic feet than the smaller space.

Sep 18th 8:57:54 pm

Welcome to Yup! I'm Ms. House and I'll be your tutor for this session. How are you today?

Sep 18th 8:58:36 pm

Good

Sep 18th 8:58:45 pm

Great!

Sep 18th 8:58:56 pm

I have reviewed your problem. We will find the answer together in no time! Are you ready to begin now?

Sep 18th 8:58:58 pm

Yes

Sep 18th 8:59:06 pm

Awesome!

Sep 18th 8:59:11 pm

I am now going to ask you questions about what you already understand and why you are stuck. This will make the session go faster! The more you participate with me the quicker we will get to solving your problem :)

Sep 18th 8:59:14 pm

Ok

Sep 18th 8:59:32 pm

Great!

Sep 18th 8:59:38 pm

Have you made any progress on this problem yet?

***1.1 - Checks for progress**

Sep 18th 8:59:44 pm

Yes I got the first part of it right

Sep 18th 9:00:13 pm

Awesome!

Sep 18th 9:00:20 pm

Do you have any ideas on how to start the second part?

**1.1 - Probing Questions*

Sep 18th 9:00:25 pm

Yes

Sep 18th 9:00:58 pm

Awesome! What do you think we should do?

Sep 18th 9:01:08 pm

I have to figure out how much more the larger space is in cubic feet than the smaller space

Sep 18th 9:02:19 pm

Yes, that's right! How do you think we can do that?

Sep 18th 9:02:35 pm

I don't know

Sep 18th 9:03:25 pm

Okay, no problem!

Sep 18th 9:03:44 pm

Well, as you answered in the first part, we're evaluating for the volume of the larger space as our first step.

**3.1 - Adapts to student's knowledge gap*

Sep 18th 9:04:11 pm

Do you know how to find the volume of a cube?

**1.2 - Guiding questions*

Sep 18th 9:04:17 pm

Yes, I multiply each side

Sep 18th 9:04:51 pm

I think

Sep 18th 9:04:55 pm

Can you explain a little more what you mean by that, please? :)

Sep 18th 9:05:06 pm

The way to find the volume of this cube I just figure out what s^3 is

Sep 18th 9:06:50 pm

That's correct, awesome job!

**3.3 - Encouraging language*

Sep 18th 9:07:01 pm

So we need to find s^3 for the larger cube.

Sep 18th 9:07:13 pm

What is "s" for the larger cube?

**2.1 - Guiding question*

Sep 18th 9:07:18 pm

7

Sep 18th 9:07:27 pm

That's correct, awesome job!

Sep 18th 9:07:34 pm

So what would s^3 be?

Sep 18th 9:07:38 pm

343

Sep 18th 9:08:05 pm

You got it, great job!

Sep 18th 9:08:21 pm

Now that we have the volume of the larger cube, what do you think we need to do next?

** 1.2 - Invites input from the student*
Sep 18th 9:08:36 pm

The volume of the smaller one

Sep 18th 9:09:15 pm

Yup, that's right!

Sep 18th 9:09:21 pm

How can we find the volume of the smaller cube?

Sep 18th 9:09:29 pm

$5^3 = 125$

Sep 18th 9:10:25 pm

That's correct, nice job!

Sep 18th 9:10:39 pm

So now we have the volumes of both cubes. What do you think we need to do next?

Sep 18th 9:10:50 pm

find the difference between the two by subtracting 125 from 343

Sep 18th 9:11:29 pm

Yup, awesome job!

Sep 18th 9:11:40 pm

What do we get when we do that?

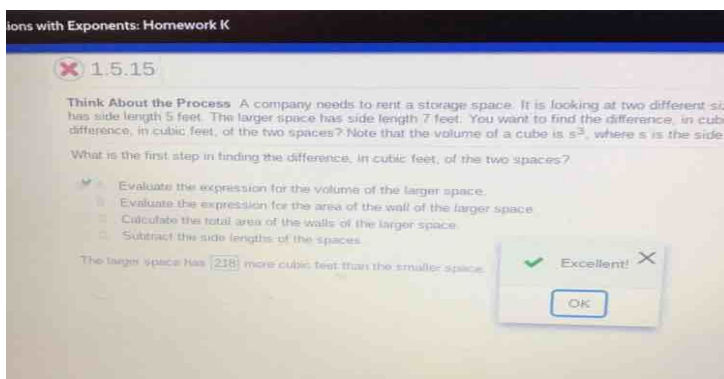
Sep 18th 9:11:44 pm

218

Sep 18th 9:12:02 pm

Yup, great work!

Sep 18th 9:12:18 pm



Sep 18th 9:12:46 pm

Ok I got it right!

Sep 18th 9:12:53 pm

Thank you

Sep 18th 9:12:56 pm

Awesome! You're welcome :)

Sep 18th 9:13:01 pm

Bue

Sep 18th 9:13:10 pm

Bye!

Sep 18th 9:13:13 pm

Bye

Sep 18th 9:13:13 pm