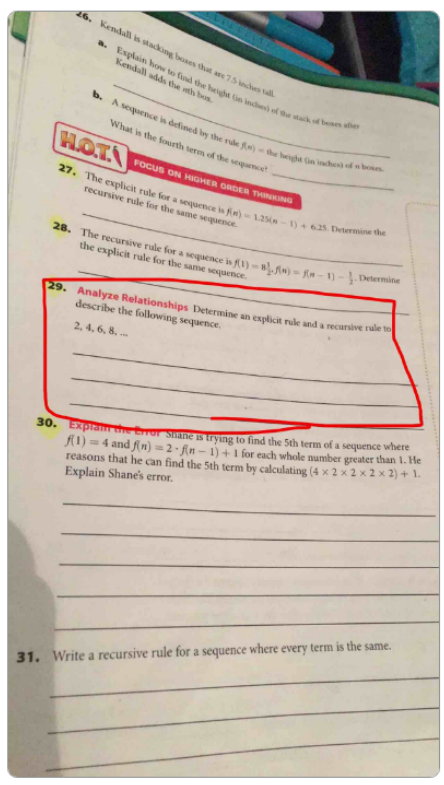


Oct 24th 11:31:05 pm

Breanna, it's good to see you.

Oct 24th 11:31:07 pm

I'm connecting you with a tutor immediately. 😎

Oct 24th 11:31:09 pm

TUTOR FOUND, NOW REVIEWING PROBLEM AT NO CHARGE

Oct 24th 11:31:14 pm

SESSION STARTED AT 3:31 PM

Oct 24th 11:31:35 pm

Hello Breanna!

Oct 24th 11:31:51 pm ✓ ***(Greets student by name)***

I am Ms. Nguyen and I will be your tutor for this session :)

Oct 24th 11:31:57 pm ✓ ***(Introduces herself by last name)***

Hi

Oct 24th 11:31:59 pm

I've reviewed your problem.

Oct 24th 11:32:13 pm

Can you tell me more about what you've tried working so far on the problem?

Oct 24th 11:32:21 pm ✓ ***A1: Determine progress***

I don't understand it

Oct 24th 11:32:46 pm

No worries! Let's work it out together :)

Oct 24th 11:33:20 pm

Are you familiar with the explicit rule and recursive rule?

Oct 24th 11:33:44 pm ✓ ***A1: Probe the student's understanding of concepts***

Yes

Oct 24th 11:33:55 pm

Great :)

Oct 24th 11:34:01 pm

Let's have a look at the sequence.

Oct 24th 11:34:31 pm

2, 4, 6, 8, ...

Oct 24th 11:34:38 pm

What do you notice about the pattern?

Oct 24th 11:34:50 pm ✓ *C2: Guiding question*

It adds 2

Oct 24th 11:35:22 pm

Correct!

Oct 24th 11:35:30 pm

The next number is obtained by adding 2 to the last number.

Oct 24th 11:36:01 pm ✓ *B2: Tutor builds on student's thoughts*

What could be the recursive rule for the sequence?

Oct 24th 11:36:32 pm ✓ *C3: Invites student input*

N-2

Oct 24th 11:36:50 pm

N+2

Oct 24th 11:37:02 pm

Hmm... Good try, but be careful!

Oct 24th 11:37:19 pm ✓ *C2: Acknowledge student's mistake without causing stress*

A recursive rule should involve the last term f(n) and the next term f(n+1) be a part in its expression.

Oct 24th 11:38:11 pm ✓ *B2: Break down underlying concept/C1: Adapt to student's knowledge gap*

For example, let's consider the sequence 1,2,3,4,...

Oct 24th 11:38:41 pm

I would say the next term = last term + 1.

Oct 24th 11:38:51 pm

✓ *B2: Demonstrate concept using similar example*

f(n-1)+2

Oct 24th 11:39:01 pm

Almost perfect!

Oct 24th 11:39:16 pm

Which term is equal to f(n-1) + 2?

Oct 24th 11:39:29 pm ✓ *C1: Tutor pulls more information with an adapted guiding question*

F(n)

Oct 24th 11:40:00 pm

Excellent!

Oct 24th 11:40:05 pm ✓ *C2: Encouraging language*

So the recursive rule is f(n) = f(n-1) + 2.

Oct 24th 11:40:20 pm

Note: This would have been a good opportunity to check for understanding ("Any questions about this so far?" or "Does that all make sense okay?")

What about the explicit rule?

Oct 24th 11:40:28 pm ✓ *C3: Invites student input*

f(n)=f(n)2

Oct 24th 11:41:21 pm

Good try, but not quite!

Oct 24th 11:41:50 pm ✓ *C2: Acknowledge student's mistake without causing stress*

An explicit rule should involve "n" as a part in its expression.

Oct 24th 11:43:21 pm ✓ *B2: Break down underlying concept/C1: Adapt to student's knowledge gap*

For example, f(n) = 2n + 1, which means the nth term would be 2•n + 1.

Oct 24th 11:43:50 pm ✓ *B2: Tutor uses example to to clarify concept*

Does that make sense?

Oct 24th 11:44:04 pm ✓ *C1: Check with student to ensure understanding*

F(n)=n•2

Oct 24th 11:44:15 pm

Awesome!

Oct 24th 11:44:35 pm

You got it :)

Oct 24th 11:44:40 pm ✓ *C2: Encouraging language*

Do you have any question else in need of clarification in this problem?

Oct 24th 11:45:05 pm ✓ *C1: Invite student to ask questions before moving on*

Note: This sentence should be worded as "Do you have any other questions about this problem?" or "Is there anything I can clarify about this problem?"

No

Oct 24th 11:45:11 pm

Great :0

Oct 24th 11:45:27 pm

:) *

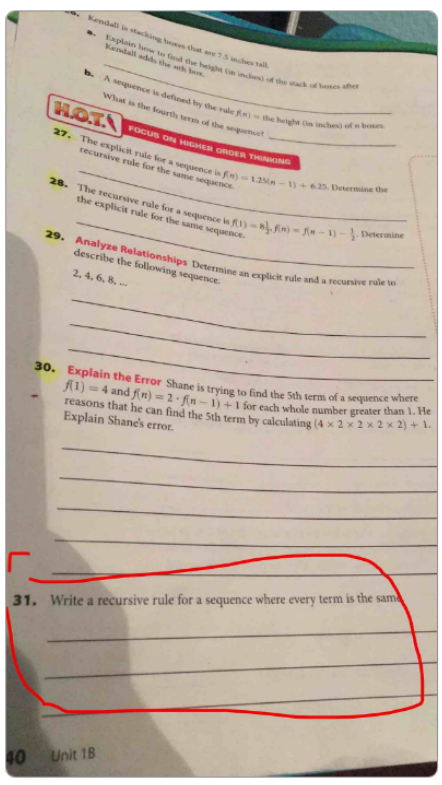
Oct 24th 11:45:31 pm ✓ *(Tutor quickly corrects typo)*

Good job!

Oct 24th 11:45:35 pm ✓ *C2: Encouraging language*

Is there anything else that I can help you with?

Oct 24th 11:45:49 pm ✓ *(Tutor checks to see if the student needs further help)*



Oct 24th 11:46:05 pm

I've reviewed your next problem.

Oct 24th 11:46:33 pm

Can you tell me more about how much progress you've made?

Oct 24th 11:46:38 pm ✓ *A1: Determine progress*

I don't understand it

Oct 24th 11:47:02 pm

No worries :)

Oct 24th 11:47:37 pm ✓ *C2: Reassures student*

Can you give me a simple example of the sequence where every term is the same?

Oct 24th 11:48:08 pm ✓ *A1: Probe student to determine level of underestanding*

1,1,1,1

Oct 24th 11:48:29 pm

Perfect!

Oct 24th 11:48:53 pm ✓ *C2: Encouraging language*

What can we say about the last term f(n-1) and the next term f(n)?

Oct 24th 11:49:10 pm ✓ *C3: Invite student input*

f(2-1)

Oct 24th 11:49:53 pm

Can you let me know what you mean by f(2-1)?

Oct 24th 11:50:29 pm ✓ *C3: Ask student to justify their thought process*

That f(2)=f(2-1)

Oct 24th 11:51:10 pm

Very good!

Oct 24th 11:51:41 pm ✓ *C2: Encouraging language*

So f(2) = f(1), right?

Oct 24th 11:51:57 pm

Yes

Oct 24th 11:52:11 pm

What about f(3)?

Oct 24th 11:52:13 pm ✓ *C3: Invite student input*

f(3)=f(2)

Oct 24th 11:52:37 pm

Perfect!

Oct 24th 11:53:05 pm ✓ *C2: Encouraging language*

Can you generalize it?

Oct 24th 11:53:24 pm

What could we say about f(n) and f(n-1)?

Oct 24th 11:53:51 pm ✓ *C3: Open guding question*

That the previous number is equal the next

Oct 24th 11:53:56 pm

That's right!

Oct 24th 11:54:08 pm ✓ *C2: Encouraging language*

If we use f(n-1) to represent the previous term, what could represent the next?

Oct 24th 11:54:55 pm ✓ *C3: Open guding question*

I'm not sure

Oct 24th 11:55:34 pm

Let me briefly explain it :)

Oct 24th 11:55:57 pm

In a sequence, we use f(n) to represent the n-th term.

Oct 24th 11:57:00 pm

For example, f(1) is the first term, f(2) is the second term, f(3) is the 3rd term and so on.

Oct 24th 11:57:27 pm

✓ *B2: Breaks down concept further*
✓ *C1: Adapts to student's knowledge gap*

In general, we use f(n) to represent the n-th term.

Oct 24th 11:57:47 pm

So the previous term is represented by f(n-1), which stands right in front of f(n) in the sequence.

Oct 24th 11:58:23 pm

Does that all make sense?

Oct 24th 11:58:30 pm ✓ *C1: Check with the student to ensure understanding*

Yes

Oct 24th 11:58:46 pm

Great :)

Oct 24th 11:59:09 pm

Let's try a simple example. If there is a pattern saying that "Next term = Previous term + 3". What can we write a rule for that?

Oct 24th 11:59:52 pm ✓ *B2: Presents a similar example to demonstrate concept*

Note: "What can we write a rule for that?" should be "How can we write a rule...." or "What rule can we write..."

f(n)+3

Oct 25th 12:00:47 am

Very close! Good try!

Oct 25th 12:01:06 am ✓ *C2: Acknowledge student's mistake without causing stress*

Remember that the recursive rule is an equation, which has equal sign.

Oct 25th 12:01:40 am

And we replace "Next term" by f(n),

Oct 25th 12:02:22 am

f(n)=f(n)+3

Oct 25th 12:02:26 am

✓ *C1: Adapts explanation to student's confusion*
✓ *C2: Motivates student with encouraging language*

"Previous term" by f(n-1).

Oct 25th 12:02:27 am

Better efforts!

Oct 25th 12:02:39 am

Can you give it another shot?

Oct 25th 12:03:01 am

Try to replace "Next term" by f(n) and "Previous term" by f(n-1).

Oct 25th 12:03:21 am

f(n)=f(n-1)+3

Oct 25th 12:03:24 am

Awesome!

Oct 25th 12:03:29 am ✓ *C2: Encouraging language*

You see, it's simple :)

Oct 25th 12:03:44 am

Let's get back to the original problem.

Oct 25th 12:03:59 am

You found that "Next term = Previous term".

Oct 25th 12:04:16 am ✓ *B2: Tie steps together*

Can you write a rule for that?

Oct 25th 12:04:23 am ✓ *C2: Invite student to proceed independently*

f(n)=f(n-1)

Oct 25th 12:05:13 am

Excellent!

Oct 25th 12:05:36 am

You made it :)

Oct 25th 12:05:39 am

✓ *C2: Encouraging language*

Do you have any question else about this?

Oct 25th 12:05:52 am ✓ *C1: Check with the student to ensure understanding*

Note: This should be "Do you have any other questions about this?" or "Is there anything else I can clarify about this?"

No

Oct 25th 12:05:58 am

Great!

Oct 25th 12:06:01 am

Do you need help with any problem else?

Oct 25th 12:06:16 am ✓ *Tutor checks to make sure student doesn't need further help*

Note: This should be "Do you need help with anything else?" or "Do you need help with any other problems?"

No thank you

Oct 25th 12:06:43 am

You're most welcome!

Oct 25th 12:07:02 am

Thank you for using Yup :)

Oct 25th 12:07:07 am ✓ *Tutor thanks student for using Yup*

Have a nice day!

Oct 25th 12:07:17 am ✓ *C2: Warm send-off*

Thanks

Oct 25th 12:07:25 am

Student ended session

Oct 25th 12:07:26 am