Problem of the Month: “Party Time”

Anna Yates School

Tracy Lewis, 2nd grade

YatesPOMGr2Part1

00:00  So, Cindy was having a…

00:02  Party!

00:03  Party, and, what did she do? One person.

00:05  Invited guests?

00:07  She invited guests, and we were trying to figure out... what? What were we trying to figure out? Who remembers? Shawani?

00:12  How many people were at the party?

00:14  How many people were actually at the party. And so the last time you all worked on this,

00:20  We stopped, and we came up with possible answers, were 9, 18, 22, 35, 11, 16, and 17.

00:35  So some answers are more accurate than others. Today, you’re going to get an opportunity to work on it.

00:41  Because how many people finished? Or how many people didn’t finish?

00:44  I don’t remember.

00:45  You don’t remember? You’re not sure? Okay.

00:48  So. Before you go back to your work, what are some things that mathematicians look for?

00:54  What do mathematicians always look for? You do want to figure out how many people Cindy actually invited to this party.

01:01  So when someone gets your work and they pick it up, how are they going to know what it is you’re thinking?

01:07  What do mathematicians going to look for? Giovanni?
They should look for evidence?

They're looking for evidence. What kind of evidence? What kind of evidence? I mean, are they going to look for footprints?

No.

No. Are they going to find an apple on your paper?

No.

No. What kind of evidence are they going to find? Erin.

Pictures?

Some pictures! Shawani.

Words?

Some words, Duwon?

Numbers.

And some numbers. What kind of numbers? What kind of numbers? Yeah?

Labels?

Maybe some labels, some numbers, some pictures, some words, Diamond?

A number sentence?

Maybe they'll find a number sentence? Victoria?

They'll find, probably, like, something like an answer to what you're looking for?

They'll find an answer to what it is we're trying to figure out. So today, you're going to get an opportunity to finish that up.

When you are done with that, Ms. Lewis has a new challenge for you. Are you ready?

Yes!

All right. So. What I'm actually going to do is hand out to you what I'm going to read to you. What you're going to work on.

And then we're going to get started on it. Here we go.
02:12 So I want you to take one, one, that’s right, and pass it.

02:17 Thank you. Take one and pass it in the back.

02:23 We’re passing them back.


02:45 That’s excellent. I heard one person starting to look at the problem, they’re trying to figure out, or just see what the words are. Raise your hand if you don’t have one.

02:54 Thank you for waiting patiently.

03:14 Thank you.

03:21 Okay, everybody has one. Let’s start at the top. What’s the title of the page?

03:26 Level C.

03:27 Okay. Let’s read it together. Mia, Jake, Carol, Barbara, Ford, and Jeff, are all going to a costume party. Figure out which person is wearing what costume, and when they arrived at the party.

03:48 Now stop. That is the scenario. That’s what’s going on. We’re supposed to figure out who’s coming to the party, and what costume they were wearing, and what order they came in.

04:05 So we’re going to read on and find out some clues. Here are our clues. Let’s go, we’ll start with the first one. The person that arrived 4th was wearing the bathing suit.

04:16 Barbara was last to arrive. Jake and Mia arrived and stayed together. The first person was dressed as a French Maid. Superman arrived right before Barbara. The Potato Heads were always together at the party.

04:41 Ford was a surfer dude. The French Maid was not Carol. The vampire arrived after superman.

04:53 Wow. Was that a lot of clues?

04:55 Yes.

04:56 Okay. What do you think the first thing we can do to figure this out?

05:01 First of all, do you remember what we’re supposed to figure out? What are we trying to figure out? Sarah, what are we trying to figure out?
The order they came in? What they were wearing, and who was who.
And who was who, the order they came in, and what they were wearing.
What information do we know for sure? Can you figure that out? What information do we know for sure? Isaiah?
The Potato Heads were all together. Always together.
The Potato Heads were always together. Were always together. So what do you think that means? If we're supposed to figure out the order, and the Potato Heads were always together.
You think that means something? You think that's important?
Kinda, sorta, not sure yet? Okay. Victoria, what do we know for sure?
I know that... I looked on line three, and I saw that Jake and Mia arrived together, so I think the Potato Heads are Jake and Mia.
You think that... why do you think that?
Because they said the Potato Heads were always together at the party, and Jake and Mia arrived and stayed together.
Oh! Arrived and stayed together. So what words let you know that those are Jake and Mia. Are there some clue words in there?
What are the clue words in there?
Stayed together.
Stayed together. Are there clue words in the other one?
Um...
So everybody look at line three. She's looking at line three, it says Jake and Mia arrived and stayed to....
Gether!
Stayed together.
It says always together!
Oh! Stayed together and always together! Okay. That's a clue.
They both have together!
Sarah, I’m going to give you an opportunity to share with the whole group, and then I want you to talk to your partner or someone that’s close to you to see what other information do we know for sure?

Sarah, what did you want to share.

I think the ... the person who arrived 4th, who was wearing a bathing suit, was Ford, because he was a surfer dude, and surfer dudes usually wear bathing suits.

Oh! So you’re using some information that you already know. How many of you have seen a surfer before? Kinda doing this thing... are they wearing a suit?

Yes.

They're wearing a suit? A suit and a tie?

No.

Are they wearing a school uniform?

No.

No, they're wearing a...

bathing suit.

A bathing suit, or... okay, so you're thinking that Ford was the surfer dude. Is that what you said?

No, we know Ford is the surfer dude.

Oh, you know Ford is the surfer dude.

So we know he’s the 4th person.

Ah! Okay. So I want you to take a minute and talk with someone who is next to you, about the information that we know for sure. What do we know for sure? Go ahead.

The information that we know for sure is that they were going to a costume party!

The first person was dressed as a French Maid.

Well I think it's the two Potato Heads. That’s what I think.

So Jake and Mia, you think they’re the two Potato Heads?

Yes I do.
And the photo heads were always together at the party. So Barbara was the photo heads.

No, what? Superman!

This one says Superman.

So, Superman arrived right before Barbara.

So I think Barbara was photo head. And I think... what's her name? Was the potato head with Jake. Yeah.

One. Eyes up, please. Okay. So we've been using a lot of words. I've been listening to some friends share, you've been listening to some friends share. We have some paper here that has words on it. So that's one way of learning.

What happens if we actually do what we did for the first problem. Do you remember what we did? The first problem? Cindy's birthday party? What did we do, Isaiah. Do you remember?

We tried to figure out how many people was at the party.

We did! But how did we do it? We did it on paper and we did it another way. Where we had something happening over here. What did we do, Horinder?

We placed people on top of the tables.

Right! So one person actually got to be Cindy, and actually invited two friends, and we actually acted it out. Do you think it would help if we tried to act this out?

Yes!

Let's try to act it out with what we know for sure.
Right! So one person actually got to be Cindy, and actually invited two friends, and we actually acted it out. Do you think it would help if we tried to act this out?

Yes!

Let's try to act it out with what we know for sure.

What do we know for sure? Are we going to use everybody?

No.

No. How many people do we need? How many actors do we need? How many actors do we need? Something else that we know for sure. Duwon.

We need six actors.

We need six actors. So.... All right. Kaylon, Kaylon, pick a friend.

Uh... Giovanni.

Okay. Giovanni. Can you do me a favor and go stand in the middle, where we usually line up? Giovanni. Pick a friend that’s a girl.

Nia.

Okay. DeAngelo... and Shanice.

Do you think we should use this? Use some information here?

Yes.

Because Ms. Lewis is trying to be fair, but...

That's five.

That's five people, well, let's see. Remember, you're actors. You're actors. My actors need to be over here, where I can see you.

One, two, three, four, five..... you were the last person.

No!

Mm hm!

It says six!

1,2,3,4,5....
02:02 Somebody's last.
02:03 Let's see.
02:04 Okay.
02:05 Sarah!
02:06 Sarah. I was going to say Sarah. Now it's six. But they are actors. Right now, are they in the right order? Can you guys move down, so everybody can see you?
02:21 Are they in the right order? So far, all we know is that they all came to the...
02:28 Party
02:29 And they all were wearing costumes.
02:31 They all were wearing costumes.
02:35 Kaylon, I see you're trying to organize people.
02:38 What are you doing?
02:40 I'm trying to put it in the right order.
02:42 Well, we're going to figure out the right order! We've got to figure out who walked through the door ...
02:47 He's sequencing!
02:48 He's sequencing! Very good word. All right. Let's see. What do we know so far?
02:52 Let's start with what Victoria said. What do we know so far?
02:56 We know that Jake and Mia arrived together, and the Potato Heads always stayed together.
03:04 All right. I need someone to be Jake.
03:07 And Mia!
03:09 And who can be Mia.
03:10 Nia!
03:12 Nia, would you like to be Mia, since your name is so close? Okay. So they always... what?
03:17 Stayed together.
03:19 stayed together. Okay. Do we know when they came in the door?
03:23 No.
03:24 No. We don’t know that yet. What else do we know for sure? Kaylon?
03:29 That the Potato Heads are... um, I forgot.
03:35 You forgot? Ayanna.
03:37 What we know for sure is that dude was wearing a bathing suit, I mean four was wearing a surfer suit, because it says the person who arrived fourth was wearing a bathing suit. And it says Ford was a surfer dude.
03:59 Okay, so what information do we know for sure?
04:03 Ms. Lewis has something here. I have some labels. Because you told me that good mathematicians use labels. And they use words. So Ms. Lewis has some words. Can you see what this says? What does that say.
04:16 Potato Head!
04:17 That says potato head. What does this say?
04:20 Potato Head!
04:21 And what about this one?
04:23 Surfer dude!
04:24 Surfer dude! So can we give these labels to some of my actors, so we know who they are?
04:29 Okay, so. You’re saying from what we read on this paper, you know that surfer dude is ... Or, not surfer dude, that Potato Head is Mia and
04:42 Jake!
04:43 And Jake. But we don’t know what order they came through the door yet.
04:45 Who is surfer dude? What is surfer dude's name? Do we know what surfer dude's name is?
04:50 Yes!
04:52 Ford!
04:53  Ford! Who would like to play Ford.

04:57  Giovanni!

04:59  Play surfer dude. All right. What else do we know for sure? What else do we know for sure? Erin?

05:10  Barbara was the last to arrive?

05:16  Barbara was the last to arrive. I need someone to play Barbara. Thank you, Sarah.

05:20  So if Sarah is Barbara, then that means, what order should she be in?

05:26  Can we figure it out? She should be...

05:30  Last!

05:31  Last. So can you place yourself last? What does that look like?

05:37  I think it would depend on where the door is. Where the door is. She's looking at the door, she's saying the door is over there. So if they were going out to a party,

05:48  Sarah would be...last.

05:53  Do we know who came in first?

05:55  Yes.

05:56  Oh, wait, Giovanni, what were you saying?

05:58  That she's the vampire, because it says the vampire arrived after Superman.

06:04  The vampire arrived after Superman. But why do you know that she's the vampire?

06:13  Oh! I know why.

06:15  What are you thinking?

06:18  I'm thinking that

06:19  Let him finish his thought.

06:26  That Superman arrived right before Barbara.

06:34  Superman arrived right before Barbara, so.
06:36  So Barbara’s Superman. No. Barbara’s the vampire, and somebody else is Superman.

06:44  And somebody else is Superman. So I think they’re doing some rearranging and some figuring out. So what Ms. Lewis has for you, is I have a title that says Superman.

06:56  Giovanni is Superman!

06:58  And right now, Sarah says she thinks she’s the vampire.

07:01  Yeah, because I came after Superman, and it says Barbara came right before Superman, and Superman came after the vampire. So I’m the vampire, and somebody else has to be Superman.

07:17  Does that make sense to everybody?

07:19  Yes!

07:20  Yes? Or kinda-sorta, or I’m not sure.

07:24  I came after.

07:25  I’m not sure. Okay. So this is what Ms. Lewis is going to do. So far, we know we have how many people?

07:30  Six!

07:32  We have six people. And I think you figured out that Jake and Mia are supposed to stay to...

07:38  Gether!

07:39  And we figured out that they are probably Mr. and Mrs. ...

07:43  Potato Head.

07:45  The Potato Heads. We know we have a vampire, but some people are saying, yeah, maybe the vampire’s Barbara, or Ms. Lewis, I’m not sure, I think it might be somebody else.

07:54  Do you want me to explain it a little better?

07:55  No, we’re going to figure it out. We have a maid, and we ....okay. And since Sarah thinks that she’s the vampire, we’re going to let her hold that. So...

08:09  Who’s Superman?
08:10 Giovanni!

08:11 Maybe Giovanni’s Superman. I’m not sure. Who’s wearing a bathing suit?

08:16 Ford!

08:17 I’m wearing a bathing suit.

08:18 So so far, we’ve figured out that we know what he’s wearing, because he’s the surfer dude, and we know their names. That’s all the information that we know for sure so far.

08:35 How many people are going to this party?

08:37 Six!

08:38 Okay, so we know that there are six people. So here’s what you’re going to do. Thank you very much, actors, you can have a seat.

08:48 But I’m wondering, who, um, made...?

08:55 You’re wondering who made the costumes?

08:58 Or who decided to...

09:00 Or who decided to have a costume party. Do you think that’s important to figure out what order they came in? Do we need to know that information to figure out?

09:09 No.

09:10 Some friends say no, some friends say yes.

09:14 Girls, quickly, because I’m about to put you to work. Are you ready?

09:15 Yes.

09:16 I’m sorry, I’m standing in your spot.

09:19 I’m going to tell you right now, as soon as I have everybody’s attention.

**YatesPOMGr2Part3**

00:01 You have some people. These people are not dressed in their costumes, okay?

00:06 So you can use this if you want to. If you don’t want to use it, you don’t have to use it. So are we going to spend all day trying to cut these people out perfectly?
No!

No. You're just going to take a pair of scissors and you're going to kind of cut around.

Ms. Lewis was just trying to get as many people on the page as I could to save the trees.

All right. So you have ... how many of these do you think you need?

Three!

You think you only need three? Only three people going to the party?

Six!

Six. Okay. And so, may I borrow your title? So what you get to do is, you get to move these people around,

And you also get to put a title on them.

Use the clues that you have on the paper to move this title. At first, you might think this person is wearing a bathing suit.

And then you might figure out, oh, wait a minute, I got a little more information and I don't think that anymore. Now I think this is one of the Potato Heads. Okay?

So depending on what you're thinking and the clues that are on the paper, you may use these people, and these titles, or you may write on them. Please do not try to color them in, that's not what we're doing right now.

Can we write a name on the bottom?

If you would like to write a name, you could write a name on the bottom, and say, this person is always going to be Jake, or this person is always going to be Mia. Yes, you may do that.

Names, but no decorations. You can write what?

Names!

Names. But...

No decorations.

No decorations. And you get to move these around, and see if you can figure out, who came first, second, third, fourth, fifth, and ...
Sixth! Sixth. Okay? And sixth is an even number, you are correct. So that’s what we’re going to do for the next, oh... 15-20 minutes. Let’s see how far you can get with this activity.

All right? And then you can record how far you get, and then we'll come back to it later on today, and you'll also get an opportunity to work on Cindy.

I see one, two, three hands. Are these questions?

Yes. Question. Ayanna first.

It’s a comment.

Hold your comment, questions first. Victoria.

I have a question.... I don’t think Barbara, I don’t think that Carol... I think Barbara is the maid and Carol is the vampire, because in line ... the line that says The French maid was not Carol!

So I think it’s Barbara, because Barbara, let’s say the French Maid was Barbara, and the vampire was Carol.

Okay. So you’re already thinking ahead about some of these clues. At first, we were thinking that the vampire is Barbara.

Victoria’s saying, Ms. Lewis, I don’t think that anymore.

So the reason I don’t want you to write titles down is because you might change your mind. Another question. Isaiah.

How are we gonna record the, um, little thing?

Where can you record it? On here. You also get these. So you can record your information on here.

Some friends may not want to use these. They might just want to use a pencil and a piece of paper.

They might want to use something different. Okay? I’m leaving that option open for you.

You don’t have to use these. Some people are like, Ms. Lewis, I don’t want to cut these out. Okay?
Are these questions or comments?

Question.

Questions first, yes.

If we want to stick them to a paper, then and staple them...

You can staple them together when we’re done.

I see you all have a lot of comments, and there’s some things you want to share. So here’s what I’m going to tell you you can do.

You can partner up, okay? You may choose a partner, or you may decide you want to work on it alone.

I will leave that option to you. Where can you work in the room? Let me answer that now. I’m so glad you asked.

You may work at your team table, you may work on the carpet by your team table,

Two groups can work in the library, no more.

So either work at a team table, if you want to be on the floor, on the carpet to move things around, you can do that at the desk where you are,

Or two teams may work in the library.

No more questions. Let’s get started! Are you ready?

(END OF CAPTIONS)

And she arrived...before Superman.

I think Superman was Carol. So.

Put her near the end, now. Ford....

So then Carol was...

Could be the French Maid, because Jeff is a man, a boy, and Carol is a girl, so I think she’s the maid.

I think that Jake is the surfer dude. That’s what I think he is.

Why do you think he’s the surfer dude?

Mmmm, probably because he likes to surf? Probably, that’s why.
06:04 I think...

06:05 Or, Mia and Jake could be the Potato Heads.

06:11 I think, I think Ford, he's the surfer dude, because it says “The person that arrived fourth was wearing a bathing suit.”

06:22 And it says that Ford was a surfer dude. So I think those two sentences go together.

06:32 So ... so, what do you think about Jeff? What do you think.. I think he's Superman.

06:45 He's superman.

06:46 How did you choose? We'll have to see. It depends if we finish the problem. It depends if we figure it out.

06:54 We're drawing the people who came to the party... and we're writing their names on the top.

07:05 How does drawing a picture help you?

07:09 Well, because we, um,

07:16 Because, like um, their names, their names, and we can write any name that we want to right on there.

07:25 This paper. Like I named him, her Jeff.

07:34 And I named her Mia. Like that.

07:37 We're writing pictures because it helps us figure out who was who.

07:48 Well, I'm just putting names on them right now, but the hard thing is that I lost my Maid thing, so I'm probably just going to use my scraps to be the Maid.

08:01 I figured out the Potato Heads were Jake and Mia, and that the surfer dude was Ford. I'm pretty sure Barbara was the vampire...

08:11 The Maid! Right here!

08:13 Oh. Thank you. That's where my maid was.

08:16 And I'm pretty sure that the vampire arrived after Superman, and Superman arrived right before Barbara, so I'm pretty sure vampire was Barbara.
08:29 Superman I think was Carol. So I’m not sure about these two, but I’m going to keep on working to find out.

08:44 Is that the order they came to the party?

08:47 No, I haven’t, I’m going to figure out what the costumes were before I figure out the order.

08:54 But that’s pretty much what’s happening right now.

09:08 I’m cutting out my pieces, but I’m not sure, because I’m still cutting out my pieces, because I do got to finish cutting those out. But I’m not sure, so I got to cut out my pieces and then I think I’ll be sure.

09:25 I agree with her.

09:30 What I’m doing is I’m sorting out the words and…. And I’m putting names on, so I think Jake and Mia is Potato Heads.

09:48 And Barbara is the vampire. And, Carol is the Maid, and that’s...

10:04 What I’m doing is... I’m cutting out people, and then I started to cut out the names. And I think Barbara is the Maid, because Barbara, on my paper it says “The French Maid was not Carol.”

10:21 So now I think it’s Barbara. And I think Jeff is Superman, because it doesn’t say anything about Jeff, and everybody else has their own costume,

10:35 Because we already figured out their costumes. And Jeff is the only name left. So I think he is Superman.

10:41 I figured it out.

10:44 Can you tell me?

10:45 Because, they didn’t say where the Potato Heads were, but they said that these two... I know these two were second to last and I know he was fourth, and the maid was first.

10:57 So I’m pretty sure they go right..

11:00 So how do you know the maid was first?

11:02 I’m pretty sure the maid was first because, well I know the maid was first, because they said.....

11:15 Let me just check.
11:19 Is this it, right here?

11:23 Superman arrived right before Barbara. So that’s those two.

11:31 Oh, here. The first person was dressed as a French Maid. That’s how I know.

11:39 Well, I’m not sure if Jeff was the maid, but I’m pretty sure, because Carol was not the French Maid, and these two were the last ones I had.

11:48 So I’m not...so I know that Carol was Superman and Jeff was the French Maid.

11:58 and I know these two..

12:00 Okay, Ford, I know he was fourth, because... the person that arrived fourth was wearing a bathing suit.

12:15 So you established that because we talked about that with Ms. Lewis. I’m really curious that you have Jeff as the French Maid.

12:22 Can you tell me more about your thinking, how you decided that Jeff was the French maid?

12:27 I heard you go through it pretty quickly. And you went so fast, I’m not sure I followed your reasoning.

12:32 Well, because Superman and the French Maid were the last ones I had.

12:39 What do you mean, the last ones you had.

12:41 Because I figured out these two, and this one. So they were the last two costumes I had.

12:28 I see, okay.

12:50 So then I just... it says Carol was not the French maid, so then I knew that Carol was Superman. So that left me with Jeff as the French Maid.

13:05 And you were okay with that. You’re feeling really confident about that decision.

13:08 Mm hmm.

13:13 But from, from Superman arrived right before Barbara, and the vampire arrived after Superman.

13:21 That told me that Barbara was a vampire, because if the vampire arrived after Superman, and Superman arrived
13:29 Arrived, right before Barbara, then Superman must have been Carol, and Barbara was the vampire.

13:41 So you’ve established who’s whom. And you’ve reasoned that out. And you’re feeling that this is the order that they have to be in.

13:47 Yeah.

13:48 So you feel like you have the solution.

13:49 Yeah.

13:50 Okay. Thank you.

13:52 You’re welcome.

13:53 We figured it out because, I was looking at the clues, and it said, I looked at the clues, and the French Maid was not Carol,

14:03 The French Maid was not Carol, so Carol is, um...

14:11 This says Barbara was the last to arrive, so I was thinking the vampire would be Carol, but they’re trying to trick us, and say that it was not Carol. But it really was Carol.

14:21 Oh! So you’re telling me that this is Carol.

14:23 Yes.

14:24 Okay.

14:25 And I’m saying that the last two persons that I saw was this person and this person. And these are the Potato Heads.

14:33 Okay. The only thing is, I don’t know who this is. I know that you’re telling me that this is Ford.

14:39 And I know you’re telling me that this is Barbara, but I’m looking for more evidence.

14:44 Okay. This is Jeff.

14:45 That’s Jeff? Okay.

14:47 And the Maid?

14:50 I think the maid is Carol.

14:57 And this is going to be ... Mia.
15:02 Okay.

15:08 And Mia? Is next to Jake.

15:18 So when I look at this, I’m still trying to figure out the order. I’m looking for more evidence. I see words, I see a picture, “Figure out which person is wearing what.”

15:31 We did that. And when they arrived at the party.

15:36 Okay. I put them in order from first to last, and I just looked at everything. It says Barbara was the last, so I know she’s a vampire. She was the last to arrive.

15:47 And The French Maid was the first one to arrive, so Carol is the maid.

15:54 So Carol has to be the Maid.

15:55 She has to be the maid.

15:57 Do you think that if someone else came over here and looked at this, they would know that this is the last person and that this is the first person?

16:06 Or is there something else that you could add to this to help people, if they walk by and go, “Wow, she figured it out!”

16:14 How would we know who came first, second, third, fourth and fifth.

16:18 A label?

16:19 Show me what label you would put on there.

16:24 I could put first here and last here. So you could tell.

16:28 what could we call these people in here.

16:30 First, second, third, fourth, fifth and sixth.

16:34 Can you put it on there, so we can see it? I like how you’re thinking!