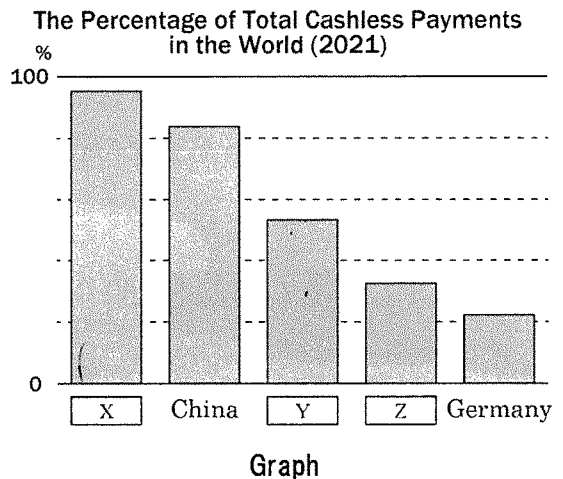問1 次の文章は，日本の高校生レイ(Rei)，アメリカ合衆国(the U.S.)からの留学生キャシー(Cathy)，韓国(Korea)からの留学生トミー (Tommy) の会話の一場面である。**会話文Ⅰ及び会話文Ⅱ**について，あとの(ア)〜(オ)の問いに答えなさい。

会話文Ⅰ

Cathy : What did you buy, Rei ?

Rei : I got coffee and a cookie. I always buy these at this cafe. What did you get, Cathy ?

Cathy : Just coffee. I couldn't buy any cookies because I didn't have enough money on my *2-D barcode *payment *app.

Rei : Oh, do you usually use 2-D barcode payment for shopping ?

Cathy : Yes. It is faster to *pay with an app on my smartphone than to pay in *cash.

Tommy : I also use 2-D barcode payment apps.

Rei : Really ? I have never used a 2-D barcode payment app. ┌─あ─┐

Tommy : It's not. You just need to download the app on your smartphone and *put money on the app. Smartphones have become a part of our daily lives and have changed our way of life. Many people in my country have started to use 2-D barcode payments *as well as other *cashless payments.

Cathy : People in my country have already been using cashless payments for many years, too. However, I've heard the *percentage of total cashless payments in my country is not as high as in Tommy's country.
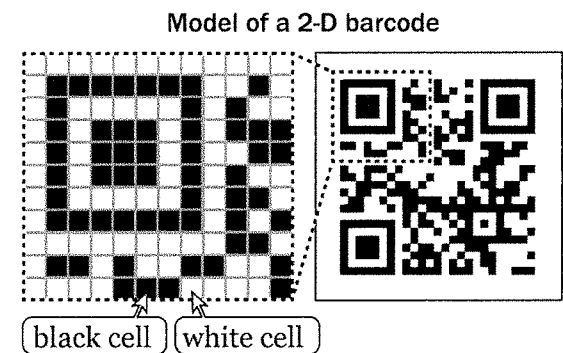
Tommy : Let me check the *actual percentage of total cashless payments in our countries with my smartphone. Well, look at this **Graph**. There are differences among each of these countries. Cathy was right. About half of the payments in her country have been cashless.

Rei : Oh, that's interesting ! By the way, why can we pay with 2-D barcodes ?

Tommy : Well, I just know they have a lot of information, but I don't know how it is *encoded.

Rei : Do you know how it is encoded, Cathy ?

Cathy : Yes, let me explain. Look at this **Picture**. Information is encoded by *patterns of black or white *cells like this "Model of a 2-D barcode." One cell can make two different patterns, a black cell or a white cell.

Tommy : Two cells can make four different patterns, right ?

Cathy : That's right. When you encode all the small *letters of the English alphabet, a to z, *at least how many cells are necessary ?

Rei : I have no idea. How about you, Tommy ?

The Percentage of Total Cashless Payments in the World (2021)

Graph

（経済産業省ウェブサイト掲載資料をもとに作成）

Model of a 2-D barcode

black cell　white cell

Picture

Tommy	:	Wait a minute … OK, I got it ! At least ▢ cells are necessary, right ?

Tommy : Wait a minute … OK, I got it ! At least ▢ cells are necessary, right ?

Cathy : Yes, that's right ! The information necessary for making payments is encoded as 2-D barcodes, and you use them to pay at shops.

Rei : Cathy, your question was really difficult, but I'm interested in using 2-D barcode payment in our daily lives. Oh, I remember that I have to make a presentation in English class next month. The topic is "Ideas to improve our school events." Do you think it is a good idea to talk about using a 2-D barcode payment app in our school festival ?

Tommy : Sounds interesting. I think the festival will be great if we can use it, but you need to find more information.

Rei : That's true ! Will you two help me ?

Cathy : Yes, of course !

Tommy : Sure !

* 2-D barcode：二次元コード　　payment：決済　　app：スマートフォン用アプリ
pay：代金を支払う　　cash：現金　　put 〜 on …：〜を…に入れる
as well as 〜：〜と同様に　　cashless：現金不要の　　percentage：割合　　actual：実際の
encoded：encode 〜（〜をデジタルデータに変換する）の過去分詞形　　patterns：パターン
cells：cell（マス）の複数形　　letters：文字　　at least：少なくとも

(ア) **会話文 I** の Graph の ▢ X ， ▢ Y ， ▢ Z にあてはまる国名の組み合わせとして最も適するものを，次の 1〜6 の中から一つ選び，その番号を答えなさい。

1. X：Japan　　　　Y：the U.S.　　　Z：Korea
2. X：Japan　　　　Y：Korea　　　　Z：the U.S.
3. X：the U.S.　　　Y：Japan　　　　Z：Korea
4. X：the U.S.　　　Y：Korea　　　　Z：Japan
5. X：Korea　　　　Y：Japan　　　　Z：the U.S.
6. X：Korea　　　　Y：the U.S.　　　Z：Japan

(イ) **会話文 I** の ▢ にあてはまるものとして最も適するものを，次の 1〜8 の中から一つ選び，その番号を答えなさい。

1. 3　　　　　　2. 5　　　　　　3. 7　　　　　　4. 9
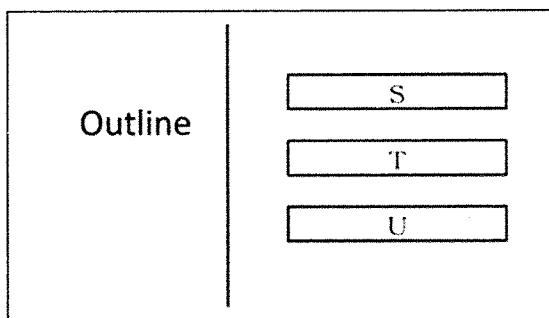5. 11　　　　　6. 13　　　　　7. 26　　　　　8. 52

会話文 II

Rei : Thank you for helping me with the research on 2-D barcode payment last week. I wrote a *Script and made slides for my presentation. I want to practice my presentation and *Q & A session. Please listen, and give me some advice. Now, I'll start my presentation.

Script

Hello, everyone. Today, I'm going to talk about how to improve our school events. We should use a 2-D barcode payment app in our school festival.
[い] My presentation has three parts, as the *outline on this **Slide** shows. I'll answer any questions in the Q & A session after this presentation.

Now, I'll begin with the first part. The Japanese government is trying to *increase the percentage of total cashless payments to 80 % in the future. Shops in Japan have started using 2-D barcode payments. So, I think this is the best time for us to start using 2-D barcode payment in our school festival. We can do this because every student in our school has their own smartphone, and also only students who go to our school can join the festival.

Outline	
	S
	T
	U

Slide

Let me talk about the next part. We used a *voucher system in our school festival last year. We had to make a lot of vouchers, sell them to many *customers, and keep the money safe. When we sold the vouchers, we also had to be careful about *calculating change. The voucher system took a lot of time to do.

I would like to talk about the last part. 2-D barcode payment is a fast and effective system. If we use it, we can save a lot of time. As a result, we can have more time to enjoy our school festival. Also, we can experience a new system, 2-D barcode payment. By trying new technologies, we can see how they make our lives better.

I believe using a 2-D barcode payment app will improve our school festival. Thank you for listening.

Rei : Let's practice the Q & A session. Please ask me a question, Cathy.
Cathy : OK. I've heard it is necessary to *pay a *commission fee to the payment service *providers.
Rei : That's right.
Cathy : How many *items should we sell to *avoid making a *loss ?
Rei : For example, *wholesalers sell one donut for [ ] yen. We buy 400 donuts from them, sell one donut for 100 yen to our customers, and pay 3 % commission fee of the item price. If we sell at least 330 donuts, we can avoid making a loss.
Cathy : I understand. Thank you.
Tommy : Let me ask a question. Cash won't be used at the festival, right ? If my smartphone *runs out of battery, how can I buy things ?
Rei : [う] I am thinking about setting up some *charging stations for smartphones.

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Tommy	:	That's a good idea.
Rei	:	Thank you for helping me to practice the Q & A session. Anyway, do you have any advice ?
Cathy	:	You should also talk about the commission fee and charging stations during the presentation.
Rei	:	That's true ! Thank you so much. I'll try to improve my presentation.
Tommy	:	We hope your idea will help our school festival.

*Script：発表原稿　　Q & A session：質疑応答　　outline：概要　　increase 〜：〜を引き上げる
voucher：金券　　customers：客　　calculating change：おつりの計算　　pay 〜：〜を支払う
commission fee：手数料　　providers：代行業者　　items：item（商品）の複数形
avoid 〜：〜を避ける　　loss：損失　　wholesalers：卸売り業者　　runs out of 〜：〜を切らす
charging stations：充電する場所

(ウ)　**会話文Ⅱ**の Slide の ☐S☐ , ☐T☐ , ☐U☐ にあてはまるものを次の a〜c の中から選んだときに，その組み合わせとして最も適するものを，あとの 1〜6 の中から一つ選び，その番号を答えなさい。ただし，☐S☐ , ☐T☐ , ☐U☐ の順番に発表するものとする。

 a.　The good points of using 2-D barcode payment
 b.　Reasons to start using 2-D barcode payment
 c.　Our experience without 2-D barcode payment

1.	S : a	T : b	U : c
2.	S : a	T : c	U : b
3.	S : b	T : a	U : c
4.	S : b	T : c	U : a
5.	S : c	T : a	U : b
6.	S : c	T : b	U : a

(エ)　**会話文Ⅱ**の ☐☐☐☐ にあてはまるものとして最も適するものを，次の 1〜8 の中から一つ選び，その番号を答えなさい。

| 1. | 60 | 2. | 65 | 3. | 70 | 4. | 75 |
| 5. | 80 | 6. | 85 | 7. | 90 | 8. | 95 |

(オ)　**会話文Ⅰ**及び**会話文Ⅱ**の ☐あ☐ 〜 ☐う☐ にあてはまるものとして最も適するものを次の 1〜4 の中から選んだときに，**いずれにもあてはまらないもの**を一つ選び，その番号を答えなさい。

 1.　You have found it out before.
 2.　You do not have to worry about that.
 3.　I'm sure it will be a big change.
 4.　I think it may be difficult to use.

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