

数学

(一) 次の計算をして、答えを書きなさい。

- 1 (-24)÷6
2 -2/7 - 1/3
3 -(2x-y)+3(-5x+2y)
4 (9a^2+6ab)÷(-3a)
5 (3√2-1)(2√2+1)-4/√2
6 (x+4)^2+(x+5)(x-5)

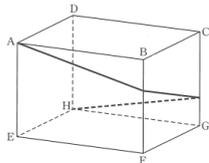
(二) 次の問いに答えなさい。

- 1 xについての二次方程式 x^2-5x+a=0の解の1つが2であるとき、aの値を求めよ。
2 下の図のように、袋の中に、1、2、3、4、5、6の数字が1つずつ書かれた6個の玉が入っている。最初に、Aさんが袋の中から玉を1個取り出し、書かれた数字を見てからそれを袋にもどす。次に、Bさんが袋の中から玉を1個取り出す。このとき、Bさんが取り出した玉に書かれた数字が、Aさんが取り出した玉に書かれた数字より大きくなる確率を求めよ。ただし、どの玉が取り出されることも同様に確からしいものとする。

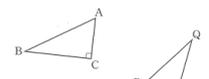


3 箱の中に同じ大きさの黒玉だけがたくさん入っている。この黒玉の個数を推測するために、黒玉と同じ大きさの白玉200個を黒玉が入っている箱の中に入れ、箱の中をよく混ぜたあと、そこから80個の玉を無作為に抽出したところ、白玉が5個含まれていた。この結果から、はじめに箱の中に入っていた黒玉の個数は、およそ何個と推測されるか。

4 下の図のように、AB=4cm、AD=2cm、AE=3cmの直方体の表面に、ひもを、頂点Aから頂点Hまで、辺BFと辺CGに交わるようにかける。ひもの長さが最も短くなるときのひもの長さを求めよ。



5 下の図において、直角三角形PQRは、直角三角形ABCを回転移動したものである。このとき、回転の中心Oを解答欄に作図せよ。ただし、作図に用いた線は消さずに残しておくこと。



6 花子さんが住む市の1か月の水道料金は、使用量が8m^3までは基本料金のみであり、使用量が8m^3を超えると、超えた使用量に対して1m^3当たり1らかの超過料金が発生する。今月から水道料金が値上げされた。先月に比べて、基本料金が20%、1m^3当たりの超過料金が15円、それぞれ高くなった。花子さんの家の使用量は先月も今月も25m^3であった。先月の水道料金は4260円であり、今月の水道料金は先月の水道料金と比べると495円高くなった。先月の基本料金を、先月の1m^3当たりの超過料金をそれぞれ求めよ。ただし、用いる文字が何を表すかを最初に書いてから連立方程式をつくり、答えを求めよ。過程も書くこと。

(三) 縦の長さがa cm、横の長さがb cmの長方形の用紙から、正方形を切り取る作業を次の【手順】にしたがって行う。ただし、a、bは整数で、用紙は1目もり1cmの方眼用紙とする。

【手順】用紙の短い方の辺を1辺とする正方形を切り取る。残った用紙が正方形でないときは、残った用紙の短い方の辺を1辺とする正方形を切り取る。残った用紙が正方形になるまで、繰り返し正方形を切り取っていく。

例えば、a=4、b=7のときの作業は次のようになる。まず、図1のような縦の長さが4cm、横の長さが7cmの長方形の用紙から、この用紙の短い方の辺を1辺とする正方形を切り取る。その切り取り方は図2のようになる。次に、残った縦の長さが4cm、横の長さが3cmの長方形の用紙から、短い方の辺を1辺とする正方形を切り取る。同様に、残った用紙が正方形になるまで切り取る。すると、a=4、b=7のときの正方形の切り取り方は図3のようになり、全部で5枚の正方形ができる。



このとき、次の問いに答えなさい。

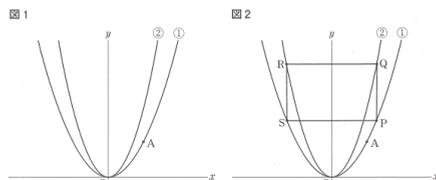
- 1 a=4、b=13のとき、上の図3にならう正方形の切り取り方を解答欄にかけ。
2 a=8、b=13のとき、全部で何枚の正方形ができるかを求めよ。
3 a=3のとき、
(1) 全部で2枚の正方形ができるようなbの値を求めよ。
(2) 全部で15枚の正方形ができるようなbの値を全て求めよ。
(四) 下の図1において、放物線①は関数 y=ax^2 のグラフであり、放物線②は関数 y=x^2 のグラフである。また、点Aは放物線①上の点であり、点Aの座標は(2、2)である。このとき、次の問いに答えなさい。

- 1 aの値を求めよ。
2 関数 y=x^2 について、xの変域が-5 ≤ x ≤ 2のときのyの変域を求めよ。
3 下の図2において、点Pは放物線①上のx > 0の範囲を動く点である。点Pを通りx軸に垂直な直線と放物線②との交点をQ、点Qを通りx軸に平行な直線と②との交点のうち、点Qと異なる点R、点Rを通りx軸に垂直な直線と放物線①との交点をSとし、四角形PQRSをつくる。また、点Pのx座標をtとする。
(1) 四角形PQRSの周の長さをtを使って表せ。

(2) 四角形PQRSの周の長さが60であるとき、

ア tの値を求めよ。

イ 点Aを通り、四角形PQRSの面積を2等分する直線の傾きを求めよ。



(五) 下の図1のような、正方形ABCDと正方形EFGHがある。頂点Eは、正方形ABCDの2つの対角線の交点と同じ位置にある。辺BCと辺EF、辺CDと辺EHの交点をそれぞれI、Jとする。正方形ABCDと正方形EFGHの相似比は、3:4である。このとき、次の問いに答えなさい。

1 △EIC ≡ △EJDであることを証明せよ。

数学の解答 section containing a table of answers for various math problems and a detailed solution for problem 6(五) involving congruence and geometry.

2 下の図2は、図1に色をつけたものである。色をつけた部分(□の部分)の面積が182cm^2であるとき、正方形ABCDの1辺の長さを求めよ。

3 下の図3のように、直線ACと対角線FHとの交点をKとする。AB=6cm、BI=1cmであるとき、四角形IFKCの面積を求めよ。

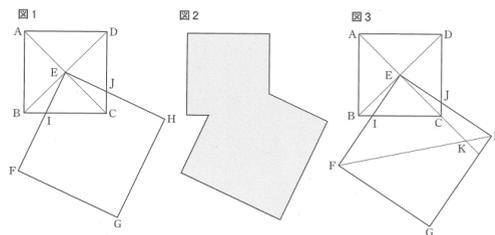


Table of answers for problem 6(2) and (3), including numerical values and units.

英語

聞き取りの問題

(一) 次の1~3の英語による対話とそれについての質問が2回ずつ読まれる。その英文を聞いて、質問に対する答えとして最も適当なものを、問題用紙のA~Eの中からそれぞれ一つ選び、その記号を解答欄に記入する。

- 1 A: I bought a new racket. B: Oh, it's nice. I have my racket and a ball. A: Then, let's play. Question: Which sport are they going to play?
2 A: What did you do last Sunday, Mary? B: I practiced the piano in the morning and watched TV in the afternoon. What did you do, Tom? A: I did my homework in the morning and walked with my dog in the afternoon. Question: What did Mary do last Sunday?
3 A: This is a picture of my friends and me at my birthday party. B: You have beautiful flowers, Tomoko. Oh, I know the tallest girl. She's Yuka, right? A: Yes. And the girl who is as tall as me is Akiko. B: Then, who is the girl with a guitar? A: She's Kumi. Question: Which girl is Akiko?

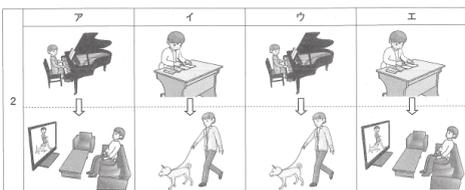
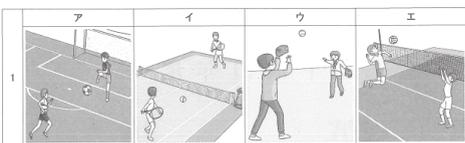
(二) 次の1、2の英語による対話が2回ずつ読まれる。その英文を聞いて、チャイムの部分に入る受け答えとして最も適当なものを、問題用紙のA~Eの中からそれぞれ一つ選び、その記号を解答欄に記入する。

- 1 A: Here's a CD you may like. B: Thank you. This is my favorite kind of music. A: (チャイム)
2 A: What are you going to do next spring vacation? B: I'm going to go to Kyoto with my family. A: (チャイム)

(三) 次の英文が通して2回読まれる。その英文を聞いて、内容についての1~4の英語の質問に対する答えとして最も適当なものを選び、問題用紙のA~Eの中からそれぞれ一つ選び、その記号を解答欄に記入する。Hello, Naoki. This is Peter. We are going to watch the soccer game tomorrow, right? I have two things to tell you about that. First, we have to take the train to the soccer stadium. My father said he would take us there by car. But he has to work tomorrow, so he can't. Taking a train is the best way to go there. The game starts at two thirty. So we need to take the train at one thirty. Shall we meet at South Station at one fifteen? You need twenty five dollars for the game and trains. Don't forget to bring it. Second, you can have dinner at my house after the game. My mother will make pizza, salad and cake for you. My brother, Jim, will help her. My sister, Kate, really wants to talk with you. You don't have to worry about getting home. My mother will take you home by car. Can you come to my house? I hope you can. Please talk with your family about that and call me soon. Goodbye.

- (質問) 1 What will Peter's father do tomorrow? 2 What time will Peter meet Naoki at South Station? 3 Who will make dinner for Naoki? 4 What does Peter want Naoki to do after the game?

(一) 聞き取りの問題



- (二) 聞き取りの問題 1 A: You're welcome. I: You don't like music. B: Nice to meet you. I: It means music. 2 A: I'm looking for it. I: You should go straight. B: I did it in Kyoto. I: That will be exciting.

(三) 聞き取りの問題

- 1 A: He will take a train. I: He will play soccer. B: He will work. I: He will study. 2 A: At 1:15. I: At 1:30. B: At 2:15. I: At 2:30. 3 A: Jim and Kate will. I: Jim and Peter will. B: Peter's mother and Kate will. I: Peter's mother and Jim will. 4 A: Peter wants Naoki to worry about getting home. I: Peter wants Naoki to bring twenty five dollars. B: Peter wants Naoki to visit Peter's house. I: Peter wants Naoki to call Peter soon.

(四) 次の1、2の問いに答えなさい。

- 1 次の(1)、(2)の各対話の文章が通るように、()の中のA~Eを正しく並べかえて、左から順にその記号を書け。 (1) A: I (ア) to something (ウ) give (エ) have) you. Here you are. B: Wow, thank you. Can I open it? A: Sure. (2) A: Did you hear that Tom saved a child? B: Yes. That (ア) happy (イ) me (ウ) made (エ) news). 2 次の(1)、(2)の質問に対する答えを、それぞれ英語で書け。ただし、(1)の①と②、(2)は、三つとも、それぞれ6語以上の1文で書くこと。(「I」「J」などの符号は語として数えない。) (1) ① 中学校時代の思い出を、英語の授業で発表するために、あなたは、何について話したいですか。 ② また、なぜそのことについて話したいと思ったのですか。 (2) 今後、充実した学校生活を送るために、あなたは、どのようなことを心がけたいですか。(ただし、(1)の①と②で答えた内容は除くこと。)

(五) 中学生の綾香(Ayaka)と健太(Kenta)がブラウン先生(Ms. Brown)と話をしている。対話文とわかば市(Wakaba)における外国人観光客数についてのプリント(handout)をもとにして、1~5の問いに答えなさい。

Ms. Brown: Hi, Ayaka. Hi, Kenta. What are you looking at? Ayaka: Hello, Ms. Brown. We are looking at the handout about the number of foreigners who visited Wakaba. Kenta: We've just found out that the number in 2017 is the largest. Ms. Brown: (ア) 何人の方がこの市を訪れたのですか。 Kenta: About 200,000. Ms. Brown: I see. I often hear (イ) (ウ). Some of my friends came here last month. They said they liked this city. I'm very happy to work in this popular city. Ayaka: How long have you been in this city? Ms. Brown: For three years. I like Wakaba very much. Kenta: What are good things about this city? Ms. Brown: It has many traditional places, and people here are so kind. Kenta: I'm very glad to hear that. I often hear (ア) those things from many people. Ms. Brown: There are also many young foreigners who come to this city to study. I believe more foreigners will come here. What do you think about that? Ayaka: I think that's really (エ) (ウ). I want to communicate with many foreigners and become friends with them. Kenta: I think so, too. Also, we can learn about the cultures and customs of other countries. Ms. Brown: In the globalized world, people from other countries often live in the same city. What's important for us to live together? Ayaka: I think we should understand that each country has its own culture and customs. Ms. Brown: Yes. That's very important. Kenta: In this city, we often hear announcements and see signs in English. But is using only English OK? I think we should use other languages, too. Ayaka: (イ) (ウ). Please look at the handout. The number of people who visited this city from China is the largest. We need more announcements and signs in their language. Ms. Brown: That's right. Such announcements and signs will help them a lot. Kenta: I'm very surprised that many Asian people visit this city. Last week, a man from Korea spoke to me. First, he spoke a language which I couldn't understand. Then, he said in English, "Where is the station?" After that, I could answer his question. I was very happy to help him. Ms. Brown: That was a (イ) (ウ) experience. English is used by many people in the world. If you use English, you can communicate with more people. So let's enjoy studying English. And there is one more thing. (イ) 多くの外国人と話をすることは、彼らの国々をもっと理解するために大切です。Don't forget that. Kenta: I see. Thank you very much.

(注) foreigner(s) 外国人 find out ~ がわかる communicate コミュニケーションをとる culture(s) 文化 custom(s) 慣習 globalized グローバル化した announcement(s) アナウンス sign(s) 標識、表示 Asian アジアの



- 1 対話文中の①、②に当てはまる最も適当なものを、それぞれ次のA~Eの中から一つずつ選び、その記号を書け。 ① A many foreigners don't work in this city I many foreigners start to study Japanese B many foreigners enjoy staying in this city U many foreigners can't find their favorite place ② A I agree I Using only English is right B I don't think so I That's not important 2 対話文中の(ア)、(イ)の日本語の内容を英語に直せ。 3 対話文中の(A)が指す内容を、日本語で具体的に二つ書け。 4 対話文中の(B)、(C)に入る最も適当なものの組み合わせを、次のA~Eの中から一つ選び、その記号を書け。 A (B) good (C) bad I (B) good (C) good B (B) bad (C) bad I (B) bad (C) good 5 次の(1)~(3)の英文の内容が、対話文、Handoutの内容に合うように、()のA~Eの中から、最も適当なものをそれぞれ一つずつ選び、その記号を書け。 (1) Ayaka says that (ア) everyone must become friends with many foreigners. I she is surprised because many Asian people come to Wakaba. B we need more announcements and signs in English. C we should know that different countries have different cultures and customs. (2) Because a man from Korea used English, Kenta (ア) could tell him how to get to the station. I couldn't understand what he said. B we could enjoy studying English. I couldn't answer where the English signs were. (3) In the handout, you find out that (ア) the number of foreigners who visited Wakaba in 2013 is the smallest. I more foreigners visited Wakaba in 2014 than in 2012. B more people from the USA visited Wakaba than people from Taiwan in 2017. C more than 30,000 people from Thailand came to Wakaba in 2017.

(六) 次の英文は、剛(Takeshi)と恵(Megumi)が、通信手段の歴史について調べたことを、英語の時間に発表したものである。これを読んで、1~7の問いに答えなさい。

Takeshi: How do you usually communicate with your friends? Many people use a smartphone now because they can deliver messages quickly with it. I think that it is very useful for communication. Since a long time ago, people in the world have tried to deliver messages quickly. People in the United States began to deliver them by telegram around 1850. They could send (ア) them more quickly by telegram than by letter. In Japan, the telegram service started between Tokyo and Yokohama in 1869. In 1873, people could use the service between Tokyo and Nagasaki, and could send telegrams to other countries in 1878. [ア] Now, they are not usually used. We see them only in special cases like graduation ceremonies. Many people tried to deliver people's voices directly to remote places, and a man in the United States invented the telephone in 1876. In 1890, the first telephone service in Japan began between Tokyo and Yokohama. Around 1950, many companies began to use this service to communicate with each other. Many people began to use a telephone at home around 1970, and they began to use a cellphone about thirty years after that. Now, by using a cellphone or a smartphone, we can talk to each other, and use the Internet even when we are not at home. By using the Internet, we can send messages to many people at the same time. And we can get messages at any place and any time. [イ] Megumi: We cannot send messages quickly by letter. Sending letters sometimes takes a few days. But my grandmother often sends me a letter. I always feel happy when I get one. Some people say that letters were first used in Egypt about 4,000 years ago. Like us, people at that time also wanted to communicate with their friends or family in remote places. (B) After that, communicating by letter spread to many places in the world. In Japan, the service of delivering letters began around 650. At that time, letters were delivered by using horses or running. [ウ] People didn't know when their letters would arrive. I think that you have heard about the word "hibyaku". Now, we have the yubin service, but before that, hibyaku delivered important messages to many places in Japan. The hibyaku service was very expensive, so (C) only a few people could use it. In many cases, hibyaku used horses or ran in relay to deliver messages. But I learned on the Internet that there was a man who could run between Tokyo and Osaka by himself. He was so strong that he could (D) do that. Also, he ran very fast and needed only about three days. [エ] The yubin service began in 1871, and people could use it only between Tokyo and Osaka. The next year, people could send letters all over Japan. The mailboxes at that time were black. Thirty years later, the color of them was changed. Now, they are red. The red mailboxes are seen all over Japan. I am always excited when I put a letter to my grandmother into the red mailbox.

(注) communicate コミュニケーションをとる smartphone スマートフォン deliver ~ を届ける telegram(s) 電報 around ~ 頃 service サービス case(s) 場合 graduation ceremony(ies) 卒業式 directly 直接に remote 遠い invent ~ を発明する telephone 電話 company(ies) 会社 cellphone 携帯電話 Egypt エジプト spread (過去形) 広がった horse(s) 馬 hibyaku 飛脚 yubin 郵便 in relay リレー形式で by himself 一人で mailbox(es) 郵便ポスト

- 1 本文中の(A)が指すものを、1語で本文中からそのまま抜き出して書け。 2 次の説明に最も近い意味を持つ1語を、本文中のTakeshiの発表の部分から、そのまま抜き出して書け。 【説明】 the sounds that people make when they speak 3 本文中の(B)の内容を表している最も適当なものを、次のA~Eの中から一つ選び、その記号を書け。 A After their family went to remote places I After people wanted to send messages B After people in Egypt used letters E After my grandmother sent me a letter 4 本文中の(C)の理由について、日本語で説明せよ。 5 本文中の(D)の指す内容を、日本語で具体的に説明せよ。 6 次の1文が入る最も適当な場所を、本文中のA~Eの中から一つ選び、その記号を書け。 It has changed the way of communication. 7 本文中で書かれている内容と一致するものを、次のA~Eの中から二つ選び、その記号を書け。 A Takeshi thinks that his friends must use a smartphone because it is useful. I People could not send telegrams from Japan to other countries in 1875. B Many people in Japan used a cellphone to send messages around 1970. E The telephone was invented after the yubin service in Japan started. C People in Japan began to send messages by letter the earliest in the world. D People used red mailboxes and sent letters to many places in Japan in 1872. F Megumi always feels happy when she gets a telegram from her grandmother.

英語の解答

Table of answers for the English section, including question numbers, correct answers, and explanations for some items.

数学

(一) 次の計算をして、答えを書きなさい。

- 1 (-24)÷6
2 -2/7 - 1/3
3 -(2x-y)+3(-5x+2y)
4 (9a^2+6ab)÷(-3a)
5 (3√2-1)(2√2+1)-4/√2
6 (x+4)^2+(x+5)(x-5)

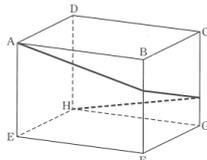
(二) 次の問いに答えなさい。

- 1 xについての二次方程式 x^2-5x+a=0の解の1つが2であるとき、aの値を求めよ。
2 下の図のように、袋の中に、1、2、3、4、5、6の数字が1つずつ書かれた6個の玉が入っている。最初に、Aさんが袋の中から玉を1個取り出し、書かれた数字を見てからそれを袋にもどす。次に、Bさんが袋の中から玉を1個取り出す。このとき、Bさんが取り出した玉に書かれた数字が、Aさんが取り出した玉に書かれた数字より大きくなる確率を求めよ。ただし、どの玉が取り出されることも同様に確からしいものとする。

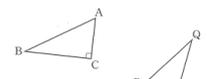


3 箱の中に同じ大きさの黒玉だけがたくさん入っている。この黒玉の個数を推測するために、黒玉と同じ大きさの白玉200個を黒玉が入っている箱の中に入れ、箱の中をよく混ぜたあと、そこから80個の玉を無作為に抽出したところ、白玉が5個含まれていた。この結果から、はじめに箱の中に入っていた黒玉の個数は、およそ何個と推測されるか。

4 下の図のように、AB=4cm、AD=2cm、AE=3cmの直方体の表面に、ひもを、頂点Aから頂点Hまで、辺BFと辺CGに交わるようにかける。ひもの長さが最も短くなるときのひもの長さを求めよ。



5 下の図において、直角三角形PQRは、直角三角形ABCを回転移動したものである。このとき、回転の中心Oを解答欄に作図せよ。ただし、作図に用いた線は消さずに残しておくこと。



6 花子さんが住む市の1か月の水道料金は、使用量が8m^3までは基本料金のみであり、使用量が8m^3を超えると、超えた使用量に対して1m^3当たり15円からの超過料金が発生する。今月から水道料金が値上げされた。先月に比べて、基本料金が20%、1m^3当たりの超過料金が15円、それぞれ高くなった。花子さんの家の使用量は先月も今月も25m^3であった。先月の水道料金は4260円であり、今月の水道料金は先月の水道料金と比べると495円高くなった。先月の基本料金を、先月の1m^3当たりの超過料金をそれぞれ求めよ。ただし、用いる文字が何を表すかを最初に書いてから連立方程式をつくり、答えを求めよ。過程も書くこと。

(三) 縦の長さがa cm、横の長さがb cmの長方形の用紙から、正方形を切り取る作業を次の【手順】にしたがって行う。ただし、a、bは整数で、用紙は1目もり1cmの方眼用紙とする。

【手順】用紙の短い方の辺を1辺とする正方形を切り取る。残った用紙が正方形でないときは、残った用紙の短い方の辺を1辺とする正方形を切り取る。残った用紙が正方形になるまで、繰り返し正方形を切り取っていく。

例えば、a=4、b=7のときの作業は次のようになる。まず、図1のような縦の長さが4cm、横の長さが7cmの長方形の用紙から、この用紙の短い方の辺を1辺とする正方形を切り取る。その切り取り方は図2のようになる。次に、残った縦の長さが4cm、横の長さが3cmの長方形の用紙から、短い方の辺を1辺とする正方形を切り取る。同様に、残った用紙が正方形になるまで切り取る。すると、a=4、b=7のときの正方形の切り取り方は図3のようになり、全部で5枚の正方形ができる。



このとき、次の問いに答えなさい。

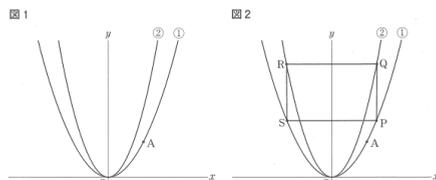
- 1 a=4、b=13のとき、上の図3にならう正方形の切り取り方を解答欄にかけ。
2 a=8、b=13のとき、全部で何枚の正方形ができるかを求めよ。
3 a=3のとき、
(1) 全部で2枚の正方形ができるようなbの値を求めよ。
(2) 全部で15枚の正方形ができるようなbの値を全て求めよ。
(四) 下の図1において、放物線①は関数 y=ax^2 のグラフであり、放物線②は関数 y=x^2 のグラフである。また、点Aは放物線①上の点であり、点Aの座標は(2、2)である。このとき、次の問いに答えなさい。

- 1 aの値を求めよ。
2 関数 y=x^2 について、xの変域が-5 ≤ x ≤ 2のときのyの変域を求めよ。
3 下の図2において、点Pは放物線①上のx>0の範囲を動く点である。点Pを通りx軸に垂直な直線と放物線②との交点をQ、点Qを通りx軸に平行な直線と②との交点のうち、点Qと異なる点R、点Rを通りx軸に垂直な直線と放物線①との交点をSとし、四角形PQRSをつくる。また、点Pのx座標をtとする。
(1) 四角形PQRSの周の長さをtを使って表せ。

(2) 四角形PQRSの周の長さが60であるとき、

ア tの値を求めよ。

イ 点Aを通り、四角形PQRSの面積を2等分する直線の傾きを求めよ。

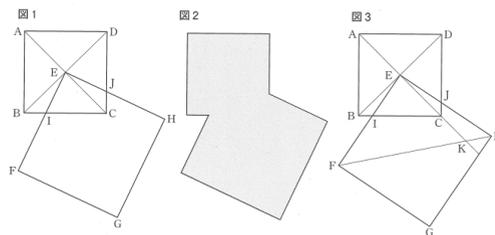


(五) 下の図1のような、正方形ABCDと正方形EFGHがある。頂点Eは、正方形ABCDの2つの対角線の交点と同じ位置にある。辺BCと辺EF、辺CDと辺EHの交点をそれぞれI、Jとする。正方形ABCDと正方形EFGHの相似比は、3:4である。このとき、次の問いに答えなさい。

1 △EIC ≡ △EJDであることを証明せよ。

2 下の図2は、図1に色をつけたものである。色をつけた部分(□の部分)の面積が182cm^2であるとき、正方形ABCDの1辺の長さを求めよ。

3 下の図3のように、直線ACと対角線FHとの交点をKとする。AB=6cm、BI=1cmであるとき、四角形IFKCの面積を求めよ。



数学の解答 section containing a table of answers for the math problems and a detailed solution for problem 5 involving triangle congruence and area calculations.

Answers for the grid-in math problems, including numerical values and algebraic expressions.

英語

聞き取りの問題

(一) 次の1~3の英語による対話とそれについての質問が2回ずつ読まれる。その英文を聞いて、質問に対する答えとして最も適当なものを、問題用紙のA~Eの中からそれぞれ一つ選び、その記号を解答欄に記入する。

- 1 A: I bought a new racket. B: Oh, it's nice. I have my racket and a ball. A: Then, let's play. Question: Which sport are they going to play?
2 A: What did you do last Sunday, Mary? B: I practiced the piano in the morning and watched TV in the afternoon. What did you do, Tom? A: I did my homework in the morning and walked with my dog in the afternoon. Question: What did Mary do last Sunday?
3 A: This is a picture of my friends and me at my birthday party. B: You have beautiful flowers, Tomoko. Oh, I know the tallest girl. She's Yuka, right? A: Yes. And the girl who is as tall as me is Akiko. B: Then, who is the girl with a guitar? A: She's Kumi. Question: Which girl is Akiko?

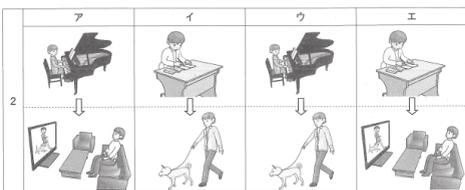
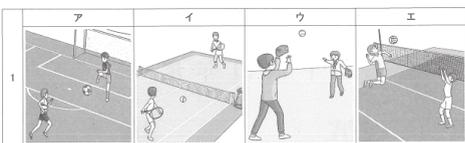
(二) 次の1、2の英語による対話が2回ずつ読まれる。その英文を聞いて、チャイムの部分に入る受け答えとして最も適当なものを、問題用紙のA~Eの中からそれぞれ一つ選び、その記号を解答欄に記入する。

- 1 A: Here's a CD you may like. B: Thank you. This is my favorite kind of music. A: (チャイム)
2 A: What are you going to do next spring vacation? B: I'm going to go to Kyoto with my family. A: (チャイム)

(三) 次の英文が通して2回読まれる。その英文を聞いて、内容についての1~4の英語の質問に対する答えとして最も適当なものを選び、問題用紙のA~Eの中からそれぞれ一つ選び、その記号を解答欄に記入する。Hello, Naoki. This is Peter. We are going to watch the soccer game tomorrow, right? I have two things to tell you about that. First, we have to take the train to the soccer stadium. My father said he would take us there by car. But he has to work tomorrow, so he can't. Taking a train is the best way to go there. The game starts at two thirty. So we need to take the train at one thirty. Shall we meet at South Station at one fifteen? You need twenty five dollars for the game and trains. Don't forget to bring it. Second, you can have dinner at my house after the game. My mother will make pizza, salad and cake for you. My brother, Jim, will help her. My sister, Kate, really wants to talk with you. You don't have to worry about getting home. My mother will take you home by car. Can you come to my house? I hope you can. Please talk with your family about that and call me soon. Goodbye.

- (質問) 1 What will Peter's father do tomorrow? 2 What time will Peter meet Naoki at South Station? 3 Who will make dinner for Naoki? 4 What does Peter want Naoki to do after the game?

(一) 聞き取りの問題



(二) 聞き取りの問題

- 1 A: You're welcome. I: You don't like music. B: Nice to meet you. I: It means music.
2 A: I'm looking for it. I: You should go straight. B: I did it in Kyoto. I: That will be exciting.

(三) 聞き取りの問題

- 1 A: He will take a train. I: He will play soccer. B: He will work. I: He will study.
2 A: At 1:15. I: At 1:30. B: At 2:15. I: At 2:30.
3 A: Jim and Kate will. I: Jim and Peter will. B: Peter's mother and Kate will. I: Peter's mother and Jim will.
4 A: Peter wants Naoki to worry about getting home. I: Peter wants Naoki to bring twenty five dollars. B: Peter wants Naoki to visit Peter's house. I: Peter wants Naoki to call Peter soon.

(四) 次の1、2の問いに答えなさい。

- 1 次の(1)、(2)の各対話の文章が通るように、()の中のA~Eを正しく並べかえて、左から順にその記号を書け。
(1) A: I (ア) to something (ウ) give (エ) have) you. Here you are. B: Wow, thank you. Can I open it? A: Sure.
(2) A: Did you hear that Tom saved a child? B: Yes. That (ア) happy (イ) me (ウ) made (エ) news).
2 次の(1)、(2)の質問に対する答えを、それぞれ英語で書け。ただし、(1)の①と②、(2)は、三つとも、それぞれ6語以上の1文で書くこと。(「I」「J」などの符号は語として数えない)
(1) ① 中学校時代の思い出を、英語の授業で発表するために、あなたは、何について話したいですか。
② また、なぜそのことについて話したいと思ったのですか。
(2) 今後、充実した学校生活を送るために、あなたは、どのようなことを心がけたいですか。(ただし、(1)の①と②で答えた内容は除くこと。)

(五) 中学生の綾香(Ayaka)と健太(Kenta)がブラウン先生(Ms. Brown)と話をしている。対話文とわかば市(Wakaba)における外国人観光客数についてのプリント(handout)をもとにして、1~5の問いに答えなさい。

Ms. Brown: Hi, Ayaka. Hi, Kenta. What are you looking at? Ayaka: Hello, Ms. Brown. We are looking at the handout about the number of foreigners who visited Wakaba. Kenta: We've just found out that the number in 2017 is the largest. Ms. Brown: (ア) 何人の方がこの市を訪れたのですか。 Kenta: About 200,000. Ms. Brown: I see. I often hear (イ) (ウ). Some of my friends came here last month. They said they liked this city. I'm very happy to work in this popular city. Ayaka: How long have you been in this city? Ms. Brown: For three years. I like Wakaba very much. Kenta: What are good things about this city? Ms. Brown: It has many traditional places, and people here are so kind. Kenta: I'm very glad to hear that. I often hear (ア) those things from many people. Ms. Brown: There are also many young foreigners who come to this city to study. I believe more foreigners will come here. What do you think about that? Ayaka: I think that's really (エ) (ウ). I want to communicate with many foreigners and become friends with them. Kenta: I think so, too. Also, we can learn about the cultures and customs of other countries. Ms. Brown: In the globalized world, people from other countries often live in the same city. What's important for us to live together? Ayaka: I think we should understand that each country has its own culture and customs. Ms. Brown: Yes. That's very important. Kenta: In this city, we often hear announcements and see signs in English. But is using only English OK? I think we should use other languages, too. Ayaka: (イ) (ウ). Please look at the handout. The number of people who visited this city from China is the largest. We need more announcements and signs in their language. Ms. Brown: That's right. Such announcements and signs will help them a lot. Kenta: I'm very surprised that many Asian people visit this city. Last week, a man from Korea spoke to me. First, he spoke a language which I couldn't understand. Then, he said in English, "Where is the station?" After that, I could answer his question. I was very happy to help him. Ms. Brown: That was a (イ) (ウ) experience. English is used by many people in the world. If you use English, you can communicate with more people. So let's enjoy studying English. And there is one more thing. (イ) 多くの外国人と話をすることは、彼らの国々をもっと理解するために大切です。Don't forget that. Kenta: I see. Thank you very much.

(注) foreigner(s) 外国人 find out ~ がわかる communicate コミュニケーションをとる culture(s) 文化 custom(s) 慣習 globalized グローバル化した announcement(s) アナウンス sign(s) 標識、表示 Asian アジアの



- 1 対話文中の①、②に当てはまる最も適当なものを、それぞれ次のA~Eの中から一つずつ選び、その記号を書け。
① A many foreigners don't work in this city. I many foreigners start to study Japanese. B many foreigners enjoy staying in this city. C many foreigners can't find their favorite place.
② A I agree. I Using only English is right. B I don't think so. I That's not important.
2 対話文中の(ア)、(イ)の日本語の内容を英語に直せ。
3 対話文中の(A)が指す内容を、日本語で具体的に二つ書け。
4 対話文中の(B)、(C)に入る最も適当なものの組み合わせを、次のA~Eの中から一つ選び、その記号を書け。
A (B) good (C) bad I (B) good (C) good
B (B) bad (C) bad I (B) bad (C) good
5 次の(1)~(3)の英文の内容が、対話文、Handoutの内容に合うように、()のA~Eの中から、最も適当なものをそれぞれ一つずつ選び、その記号を書け。
(1) Ayaka says that (ア) everyone must become friends with many foreigners. I she is surprised because many Asian people come to Wakaba. B we need more announcements and signs in English. C we should know that different countries have different cultures and customs.
(2) Because a man from Korea used English, Kenta (ア) could tell him how to get to the station. I couldn't understand what he said. B we could enjoy studying English. I couldn't answer where the English signs were.
(3) In the handout, you find out that (ア) the number of foreigners who visited Wakaba in 2013 is the smallest. I more foreigners visited Wakaba in 2014 than in 2012. B more people from the USA visited Wakaba than people from Taiwan in 2017. C more than 300,000 people from Thailand came to Wakaba in 2017.

(六) 次の英文は、剛(Takeshi)と恵(Megumi)が、通信手段の歴史について調べたことを、英語の時間に発表したものである。これを読んで、1~7の問いに答えなさい。

Takeshi: How do you usually communicate with your friends? Many people use a smartphone now because they can deliver messages quickly with it. I think that it is very useful for communication. Since a long time ago, people in the world have tried to deliver messages quickly. People in the United States began to deliver them by telegram around 1850. They could send (ア) them more quickly by telegram than by letter. In Japan, the telegram service started between Tokyo and Yokohama in 1869. In 1873, people could use the service between Tokyo and Nagasaki, and could send telegrams to other countries in 1878. [ア] Now, they are not usually used. We see them only in special cases like graduation ceremonies. Many people tried to deliver people's voices directly to remote places, and a man in the United States invented the telephone in 1876. In 1890, the first telephone service in Japan began between Tokyo and Yokohama. Around 1950, many companies began to use this service to communicate with each other. Many people began to use a telephone at home around 1970, and they began to use a cellphone about thirty years after that. Now, by using a cellphone or a smartphone, we can talk to each other, and use the Internet even when we are not at home. By using the Internet, we can send messages to many people at the same time. And we can get messages at any place and any time. [イ] Megumi: We cannot send messages quickly by letter. Sending letters sometimes takes a few days. But my grandmother often sends me a letter. I always feel happy when I get one. Some people say that letters were first used in Egypt about 4000 years ago. Like us, people at that time also wanted to communicate with their friends or family in remote places. (B) After that, communicating by letter spread to many places in the world. In Japan, the service of delivering letters began around 650. At that time, letters were delivered by using horses or running. [ウ] People didn't know when their letters would arrive. I think that you have heard about the word "hibyaku." Now, we have the yubin service, but before that, hibyaku delivered important messages to many places in Japan. The hibyaku service was very expensive, so (C) only a few people could use it. In many cases, hibyaku used horses or ran in relay to deliver messages. But I learned on the Internet that there was a man who could run between Tokyo and Osaka by himself. He was so strong that he could (D) do that. Also, he ran very fast and needed only about three days. [エ] The yubin service began in 1871, and people could use it only between Tokyo and Osaka. The next year, people could send letters all over Japan. The mailboxes at that time were black. Thirty years later, the color of them was changed. Now, they are red. The red mailboxes are seen all over Japan. I am always excited when I put a letter to my grandmother into the red mailbox.

(注) communicate コミュニケーションをとる smartphone スマートフォン deliver ~ を届ける telegram(s) 電報 around ~ 頃 service サービス case(s) 場合 graduation ceremony(ies) 卒業式 directly 直接に remote 遠い invent ~ を発明する telephone 電話 company(ies) 会社 cellphone 携帯電話 Egypt エジプト spread (過去形) 広がった horse(s) 馬 hibyaku 飛脚 yubin 郵便 in relay リレー形式で by himself 一人で mailbox(es) 郵便ポスト

- 1 本文中の(A)が指すものを、1語で本文中からそのまま抜き出して書け。
2 次の説明に最も近い意味を持つ1語を、本文中のTakeshiの発表の部分から、そのまま抜き出して書け。
【説明】 the sounds that people make when they speak
3 本文中の(B)の内容を表している最も適当なものを、次のA~Eの中から一つ選び、その記号を書け。
A After their family went to remote places.
B After people wanted to send messages.
C After people in Egypt used letters.
D After my grandmother sent me a letter.
4 本文中の(C)の理由について、日本語で説明せよ。
5 本文中の(D)の指す内容を、日本語で具体的に説明せよ。
6 次の1文が入る最も適当な場所を、本文中のA~Eの中から一つ選び、その記号を書け。
It has changed the way of communication.
7 本文中に書かれている内容と一致するものを、次のA~Eの中から二つ選び、その記号を書け。
A Takeshi thinks that his friends must use a smartphone because it is useful.
B People could not send telegrams from Japan to other countries in 1875.
C Many people in Japan used a cellphone to send messages around 1970.
D The telephone was invented after the yubin service in Japan started.
E People in Japan began to send messages by letter the earliest in the world.
F People used red mailboxes and sent letters to many places in Japan in 1872.
G Megumi always feels happy when she gets a telegram from her grandmother.

英語の解答

Table with columns for question number, correct answer, and the answer itself. It covers all 7 questions from the English section.