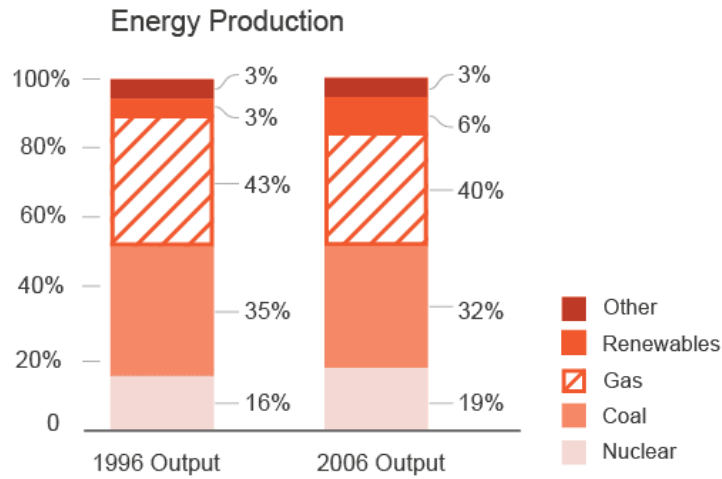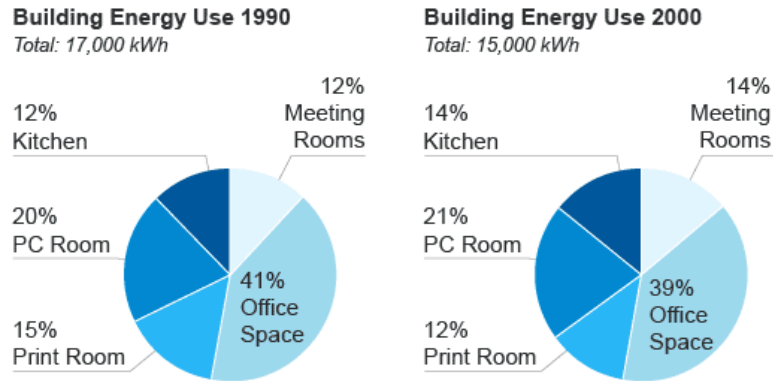| NO.	QUESTION
1	The following chart shows the total energy production in the world in 1996 and 2006. ● The total energy produced in 1996 was 200 TWh. ● The energy produced by Nuclear in 2006 was twice that of Coal in 1996. **How much energy was produced by Nuclear in 2006 in TWh?** A. 70 TWh B. 110 TWh C. 90 TWh D. 140 TWh
2	Sherlock wants to purchase the most delicious cookies from Bakers Street. There are four shops that sell cookies. The prices of the cookies in each shop are shown in the table below. <table><tr><th>SHOP</th><th>PRICE</th><th>PROMO</th></tr><tr><td>A</td><td>$3.2</td><td>30% off on the 2nd and 4th items</td></tr><tr><td>B</td><td>$2.8</td><td>Regular Price</td></tr><tr><td>C</td><td>$4.6</td><td>Buy 3, get 2</td></tr><tr><td>D</td><td>$3.4</td><td>20% off on total bill</td></tr></table> Sherlock wants to purchase 10 expensive cookies. **Which shop should Sherlock buy the cookies from?** A. Shop A B. Shop B

C. Shop C
D. Shop D

| 3 | The following pie charts show the amount of energy an office building used in the year 1990 and 2000.

● The unit for energy use is kWh

Building Energy Use 1990
Total: 17,000 kWh

12% Kitchen
20% PC Room
15% Print Room
12% Meeting Rooms
41% Office Space

Building Energy Use 2000
Total: 15,000 kWh

14% Kitchen
21% PC Room
12% Print Room
14% Meeting Rooms
39% Office Space

Which space saw the smallest reduction in energy use between 1990 and 2000?

A. Meeting rooms
B. Office space
C. Print room
D. PC room

| 4 | Lisa needs office supplies but it usually takes a very long time for the office to release a budget. So, she collected money from her office mates instead, and gathered a total of $50. The shops from which she can buy the supplies are given in the table below.

ITEM	SHOP A	SHOP B	SHOP C	SHOP D
pen	$4	$3	$5	$3
notebook	$10	$6	$9	$7
ruler	$2	$5	$4	$2
scissor	$15	$14	$8	$10
glue	$8	$9	$5	$7

Lisa needs 5 pens, 2 notebooks, 3 rulers, 2 scissors, and one glue. She needs to buy all the supplies from the same shop and to spend as little as possible.
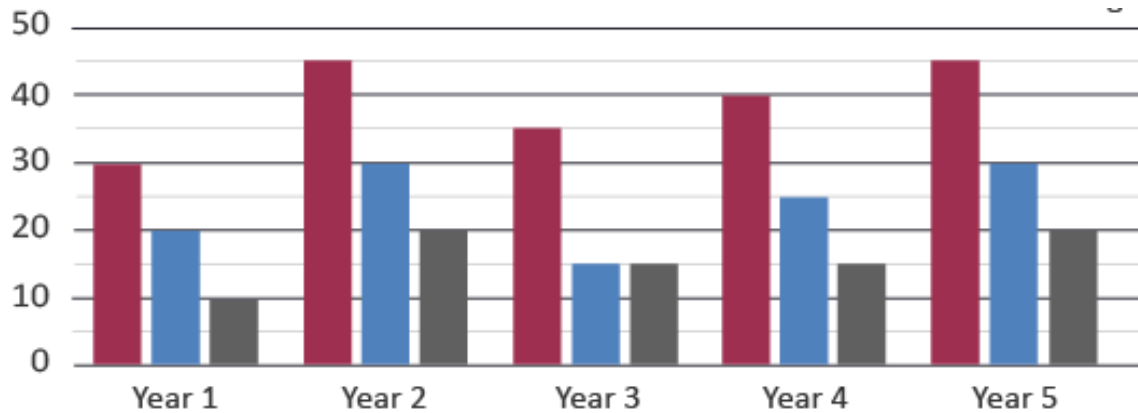
Which of the following is the amount Lisa has contributed?

A. $11
B. $50

C. $62
D. $12

5

The following chart shows the income of three different airlines.

- The expected growth in income for year six is equal to the growth from year 4 to year 5.
- The units are in millions of dollars.

Assuming the statement above is true, what would the combined income be for the three companies in year 6?

A. 90 million $
B. 110 million $
C. 145 million $
D. 120 million $

6

During our Christmas Party, there was a game in which the players needed to finish eating a 5-kg steak. Whoever got an average of more than 125 secs are disqualified. The results are shown in the table below.

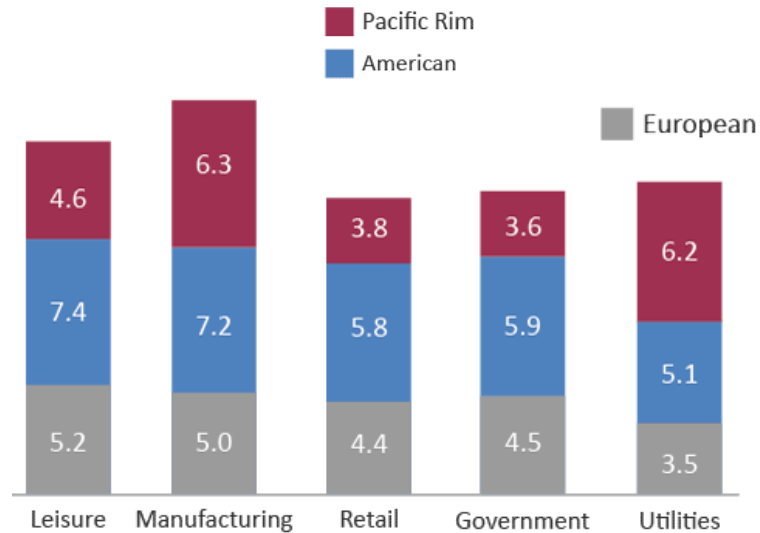| NAME	TRIAL 1	TRIAL 2
Dominic	1 min 30 secs	2 min 39 secs
Sean	2 min 48 secs	1 min 38 secs
Clytee	3 min 6 secs	1 min 2 secs
Florabelle	2 min 15 secs	2 min 2 secs
Arthur	1 min 59 secs	1 min 30 secs
Janet	2 min 3 secs	1 min 59 secs

Who got eliminated?

A. Florabelle, Dominic

B. Clytee, Sean
C. Florabelle, Sean
D. Dominic, Janet

| 7 | The following chart shows the amount of money invested in a certain sector, showing the values in millions $. |

●   It is known that in the Pacific Rim, the ratio of investment to profit is 2:15

Assuming the statement above is true, what is the amount of profit gained in the pacific rim in the government sector?

A.   27 million $
B.   32 million $
C.   54 million $
D.   13 million $

| 8 | Khayle wants to attend a 9-day comic convention. Her parents gave her $1,522 for the tickets and her allowance. The comic con will be on the following days: 1, 2, 3, 6, 8, 11, 12, 13, and 14. The prices of the tickets are as follows. |

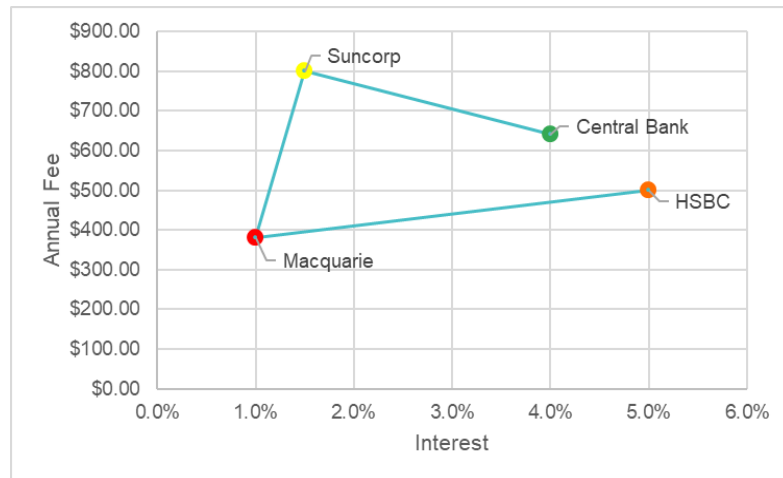| PASS FOR 1 DAY	PASS FOR 3 DAYS	PASS FOR 4 DAYS
$56	$160	$215

Khayle wants to choose the cheapest valid combination so that she will still have enough money to be equally divided for 9 days as her allowance.

Which of the following will Khayle's allowance after paying for the tickets?

A. $110
B. $120
C. $115
D. $125

9	Toto is in search of a credit card. He browsed online and gathered the data needed which are shown in the chart below.

Which bank should he get his credit card from if he wants to save more?

A. HSBC
B. Macquarie
C. Suncorp
D. Central Bank

---

10 The school registrar Annie needs to evaluate the result of the recent licensure examination for mechanical engineers. Shown in the table below are the number of students who passed and failed in each class.
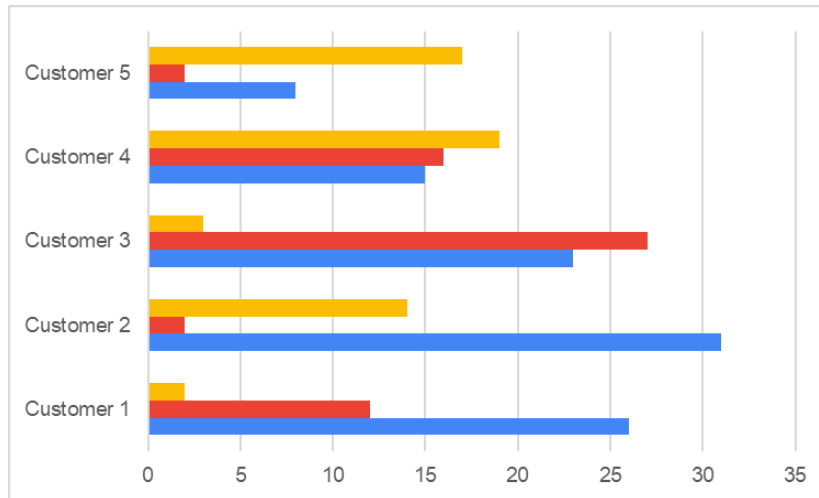
CLASS	PASSED	FAILED
Class A	23	8
Class B	16	10
Class C	35	2
Class D	26	7

Which classes will give an average of 70% passing rate?

A. Class A and Class C
B. Class B and Class D
C. Class A and Class B
D. Class C and Class D

---

11 NLC Supermarket is giving away free sacks of rice for their 2nd Anniversary. Customers with a minimum purchase of $45 will be able to receive the price. The chart below shows the data gathered.

How many customers will be eligible to receive the give away sack of rice?

A. 5
B. 3
C. 4
D. 1

---

12 | During a science experiment, the class needs to determine at what temperature a glass will start to crack. Below shows the data gathered by each group.
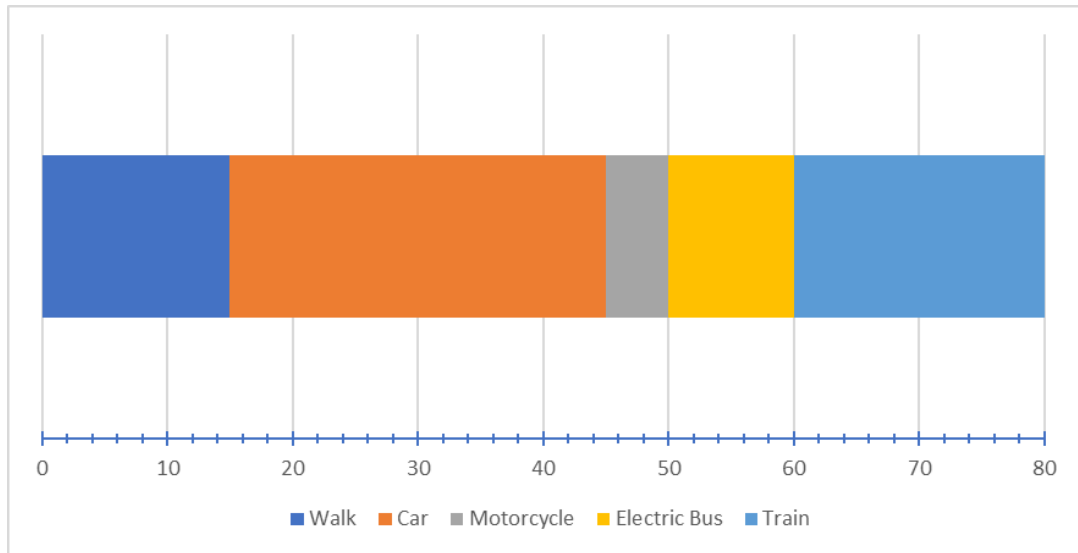
GROUP	GUESS 1	GUESS 2	GUESS 3
1	73 °F	49 °F	85 °F
2	69 °F	70 °F	65 °F
3	36 °F	42 °F	96 °F
4	58 °F	62 °F	36 °F

The teacher revealed that a glass starts to break at 60 °F.

Which group guessed the value closest to the answer?

A. Group 1
B. Group 2
C. Group 3
D. Group 4

---

13 | Engineers from the Construction Division were asked about their means of transportation going to work. The data are given in the chart below.

Which percentage should the lowest value have to increase to reach the highest value?

    A. 83%
    B. 74%
    C. 65%
    D. 68%

14

Sana is decorating for Christmas. She realises she lacks some materials and decides to go online shopping. She found four shops that sell all the materials needed. The table below shows the shops and prices of each material.

ITEM	SHOP A	SHOP B	SHOP C	SHOP D
Christmas Baubles	$4	$6	$3	$8
Christmas Tree	$25	$30	$28	$26
Wreath	$6	$4	$7	$3
Mistletoe	$3	$4	$6	$5
Ornaments	$4	$5	$4	$3

Sana needs 12 Christmas Baubles, 1 Christmas Tree, 2 Wreaths, 5 Mistletoes, and 8 Ornaments. The delivery fee for shops A and B is $20, and $10 for shops C and D.
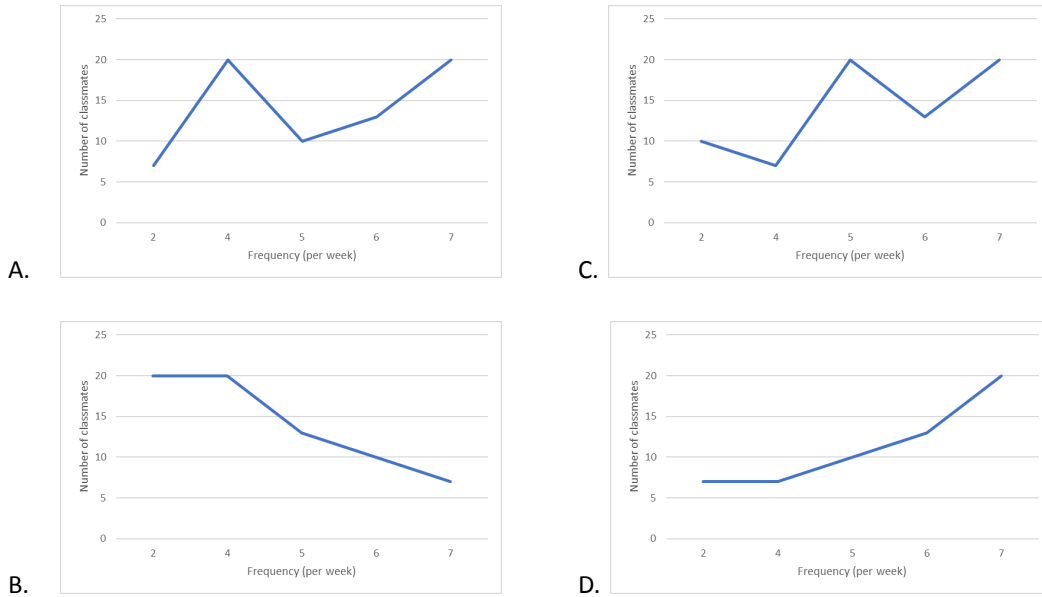
Which of the following is Sana's total expenses if she wants to buy the materials from the same shop and spend as little as possible?

    A. $132
    B. $150
    C. $152
    D. $187

| 15 | Jay would like to know how often his classmates eat cereal in a week. The table below shows the result. |

FREQUENCY (PER WEEK)	2	4	5	6	7
NUMBER OF CLASSMATES	7	20	10	13	20

Which of the following represents the data above?

A.

C.

B.

D.

| 16 | Candy is having a birthday party on Sunday. She only wants to invite her classmates who are 5 years old and below, and are born 3 months before and after her birth month. Shown in the table below are the names and birthdates of her classmates. |

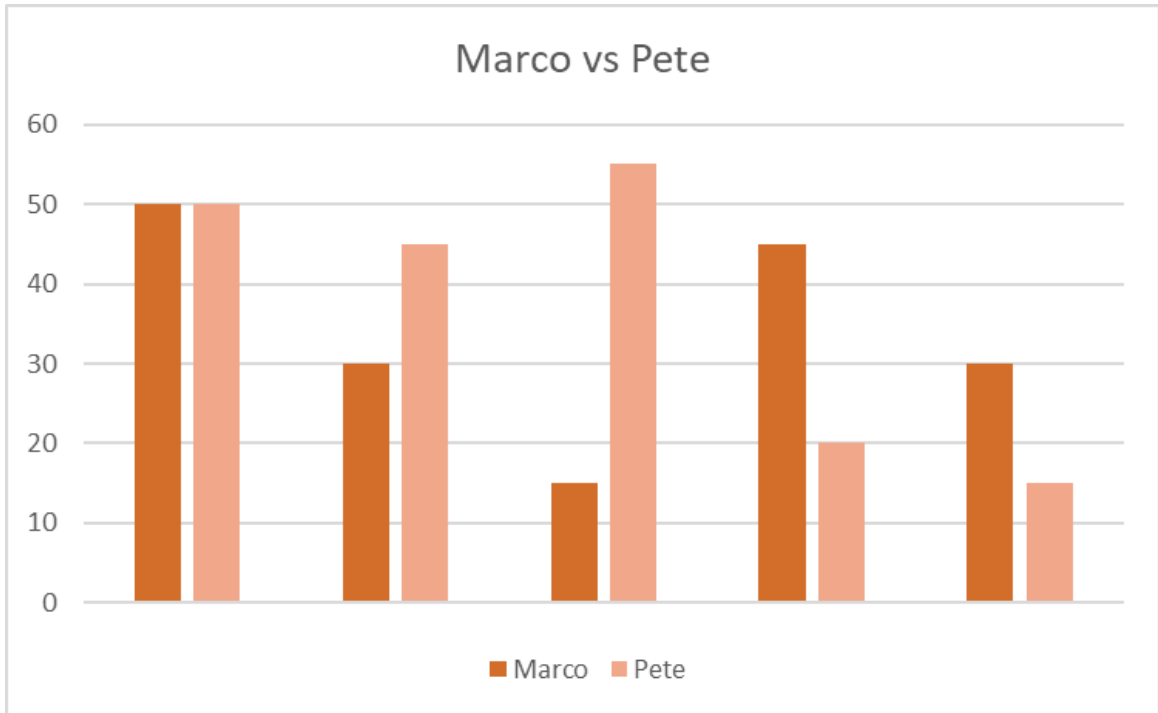| NAME	BIRTHDATE
Rea	October 27, 2017
Nelson	December 5, 2018
Ashian	April 6, 2017
Angel	October 18, 2016
Gretchen	August 27, 2017
Lea	September 7, 2017

If Candy's party will be on December 8, 2022, how many classmates can she invite?

A. 1 classmate
B. 4 classmates

	C. 3 classmates
	D. 2 classmates
17	Australian football is a contact-game between 2 teams of 18 players. Marco and Pete were interested in the game and decided to create two teams and play five games. The data are shown below.

Who won the championship and what is the difference of their total scores?

A. Marco, 15 points
B. Pete, 10 points
C. Marco, 10 points
D. Pete, 15 points

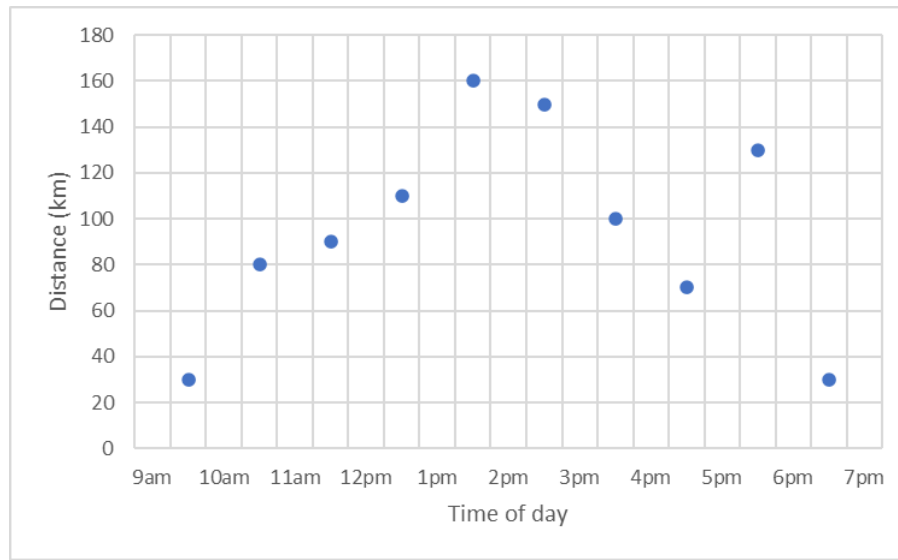18 Charles and his 3-year-old daughter Yumi want to go on a 9-day field trip to Disneyland while spending as little as possible. The scheduled days for the trip are: 1, 3, 4, 5, 7, 8, 9, 10, and 11.

1- DAY PASS	3-DAY PASS	5-DAY PASS
$16	$45	$78

How much would Charles pay for their tickets if kids are free of charge for the last five days?

A. $200
B. $185
C. $278
D. $139

19 Shown in the table below is the travel data of Chin.

Distance (km) vs Time of day — scatter plot with axis values 0 to 180 (Distance, km) and 9am to 7pm (Time of day).

How far did Chin travel from 12:30 pm to 6:30 pm?
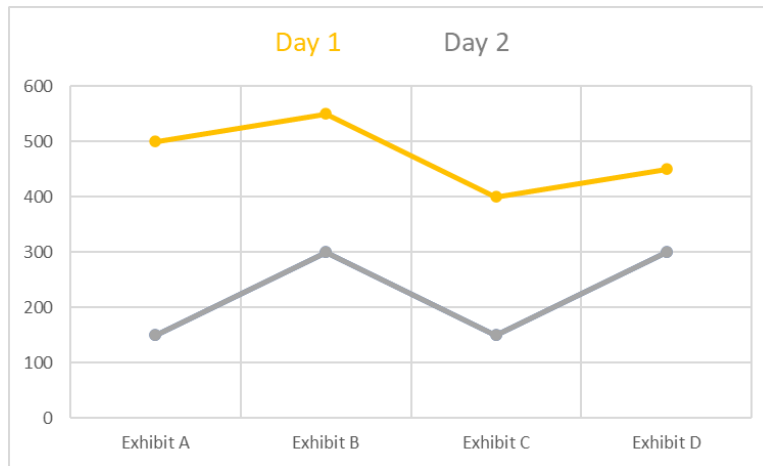
A. 800 km
B. 750 km
C. 680 km
D. 900 km

20 An antibiotic medicine was prescribed to Mary for her illness. She needs to take the medicine once a day for 15 days except Monday, Wednesday, and Friday. Her first intake is on Thursday 3 May.

May

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

What is the day and date of her final medicine intake?

A. Tuesday 5 June
B. Sunday 27 May
C. Saturday 2 June
D. Saturday 26 May

21 Tina posted her painting exhibits online for two days. She wanted to know how many people would react to her social media post. The data she gathered is shown below.

Day 1   Day 2

How many people reacted to Tina's posts?

    A.   1800
    B.   1600
    C.   1900
    D.   1700

22   The Olympic Winter Games 2022 held at Beijing released the semifinals result for the sport Figure Skating. Scores that exceed 215 qualify for the final round. There are only two trials and the highest score between the two trials will be recorded as their final time. The table below shows the data.

COUNTRY	TRIAL 1	TRIAL 2
France	226	214
USA	220	227
Italy	2018	216
Canada	214	215
Spain	208	232
Great Britain	231	218
Finland	217	219

Which country ranked 1st during the semifinals?

    A.   France
    B.   Great Britain
    C.   Spain
    D.   Finland

23 Sierra made a table of values of how often she listens to the song Phantom of the Opera on Spotify. The table is shown below.

MONTH	February	March	April	July	August
SALES	56	18	85	65	105

Which graph represents her Spotify data?

A.

C.

B.

D.

24 Five students compare their final scores to the top student's score. The average of their exam scores will be the basis for their final scores. The table below shows their scores for each exam.

STUDENT	EXAM 1	EXAM 2	EXAM 3
A	46	43	48
B	45	41	43
C	42	49	45
D	40	43	48

The final score of the top student is 48.15

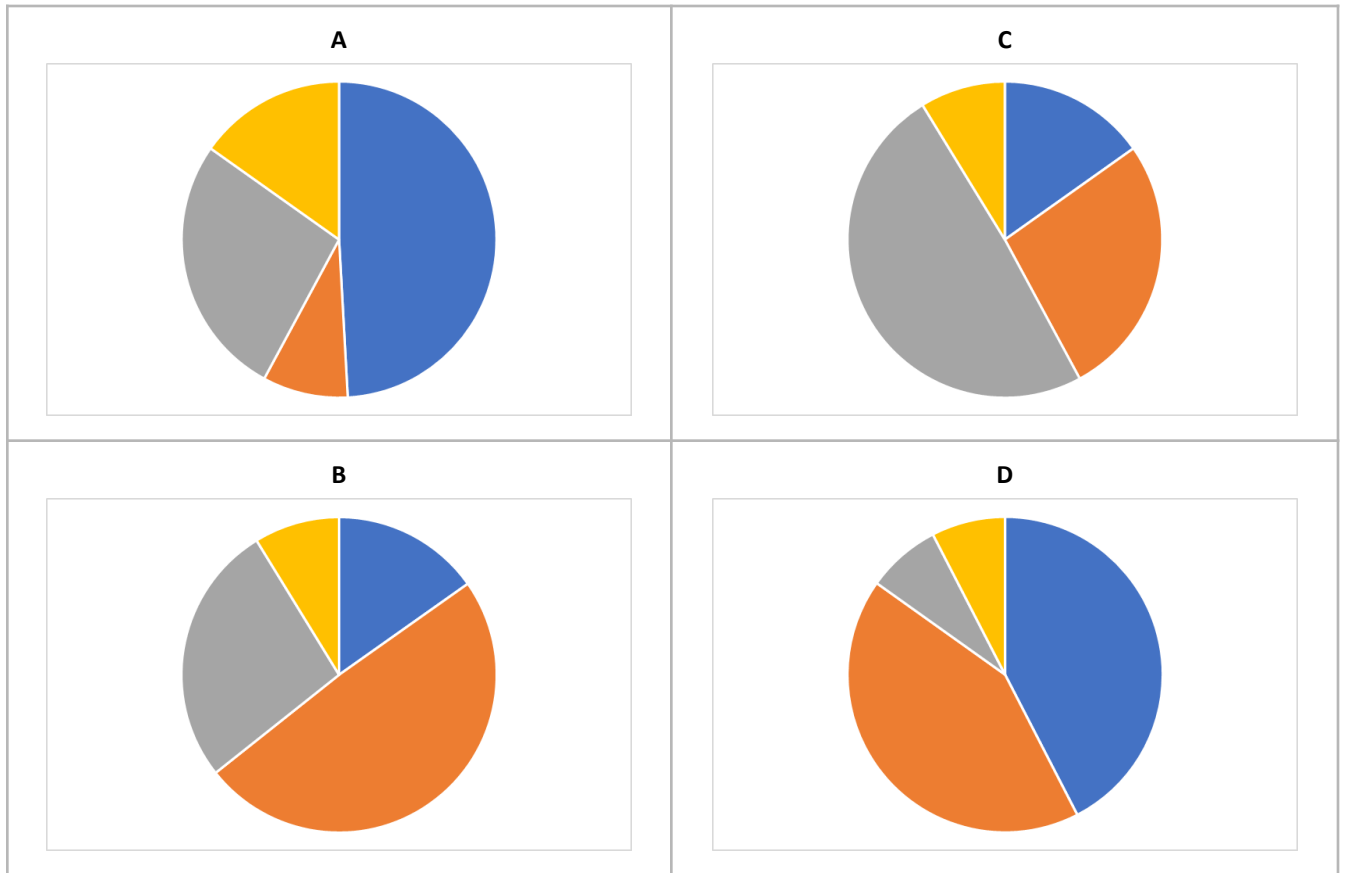**What is the difference between the top student's final score and the lowest final score?**

A. 2.48
B. 4.48
C. 5.15
D. 5.48

25	Megan won four times during their office party. She wants to know which of the prizes is the grand prize and which are the consolation prizes only. So, she looked through the prices of each item in the market. The data she gathered are given below.

PRIZE	MARKET PRICE
Electric Fan	$130
Microwave	$420
Toaster	$230
Rice Cooker	$75

Which of the following graph best describes the data above if the gray portion represents the Toaster?

A

C

B

D

26	Joan wants to attend an educational seminar for nine days. The scheduled days for the seminar are: 2, 3, 4, 5, 8, 10, 14, 15, and 16.

PASS FOR 1 DAY	PASS FOR 3 DAYS	PASS FOR 4 DAYS
$25	$70	$95

Which of the following is the difference between the most expensive and the cheapest combination?

A. $10
B. $15
C. $5
D. $20

---

27 | Ren made an allocation for his allowance for the week. The table shows the data of the allocation.

EXPENSES	CORRESPONDING ANGLE OF EACH SECTOR
Water Bill	20°
Electric Bill	30°
Food	190°
Fare	120°

Which of the following graph represents the data above?

A

- Water Bill
- Electric Bill
- Food
- Fare

6% 8% 33% 53%

C

- Gifts
- Decoration
- Food
- Savings

6% 8% 33% 53%

B

- Gifts
- Decoration
- Food
- Savings

8% 6% 33% 53%

D

- Gifts
- Decoration
- Food
- Savings

8% 6% 53% 33%

---

28 | 10 kids went trick or treating during halloween. They already went to two blocks and are needed to go one more block to complete the data needed to calculate the final count of the candies gathered. The current average candy count per kid is given in the table below.

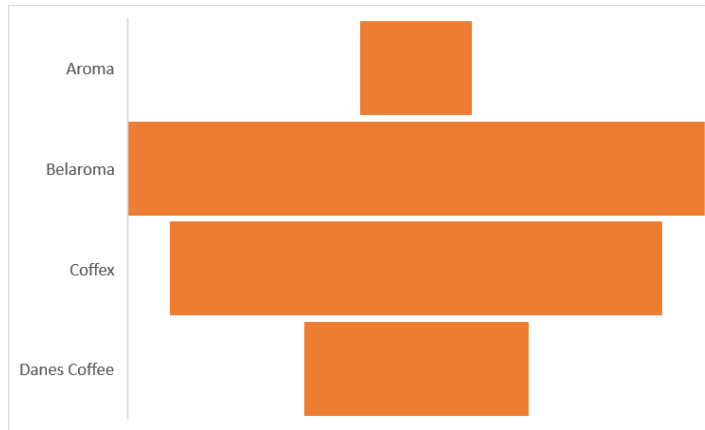| KIDS	AVERAGE
1	23
2	34
3	25
4	24
5	28
6	31
7	35
8	23
9	25
10	25

If all the kids get the same number of candies in the third block and the minimum number of candies per kid is 25, what is the minimum candy count that should be achieved in the third block to ensure that all the kids would get 25 and above?

    A. 25
    B. 27
    C. 29
    D. 28

29 | Christine can't decide where she should purchase her coffee from. Therefore, she asked her colleagues to rate the brands on her list on a scale of 1 to 100.

DOG BREED	Ruel	Rey	Raven	Riva
Aroma	55	8	25	15
Belaroma	12	41	25	29
Coffex	23	35	25	22
Danes Coffee	10	16	25	34

Whose pie chart is being represented?

A. Ruel
B. Rey
C. Raven
D. Riva

30 | Maye recently auditioned as a choir member. In order to be an official member, she needed to complete a 15-day training conducted by the chorale club. Her first day of training is on Friday 18 May, and there will be no training every Sunday, Monday, and Tuesday.

May

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

What is the day and date of her final training?

A. Thursday 14 June
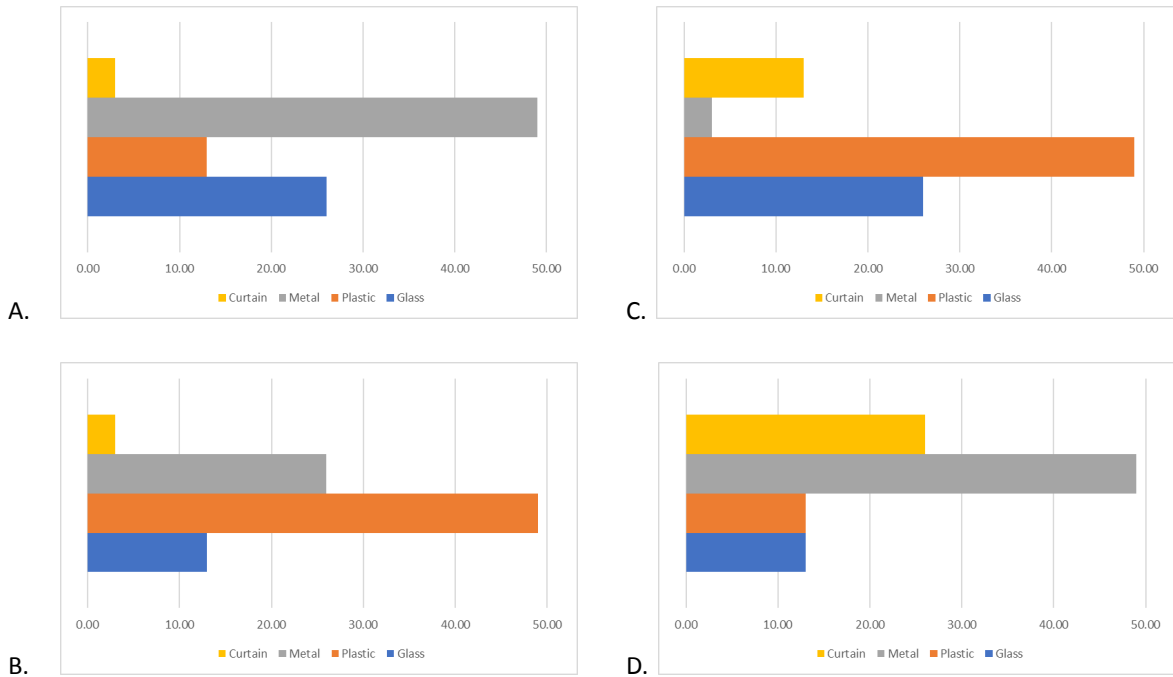B. Wednesday 13 June
C. Saturday 2 June
D. Thursday 31 May

31 | Yohan recently bought a thermometer and tried testing it on certain objects. The table below shows the data.

OBJECT	TEMPERATURE
Glass	26°C
Plastic	13°C
Metal	49°C
Curtain	3°C

Charlie made a chart out of the temperature readings. However, the unit she used was Kelvin.

0°C = 273.15 Kelvin

Which chart shows the result of the students' temperature readings in Kelvin?

A.

C.

B.

D.

32	Chowder wants to sell his brownies at an affordable price. The prices of each ingredient he used are listed in the table below.

INGREDIENT	PRICE
Chocolate	$10
Sugar	$12
Vanilla Extract	$6
Cake Flour	$8
Baking Powder	$7

How much should he sell his brownies if he wants a 5% return of investment?
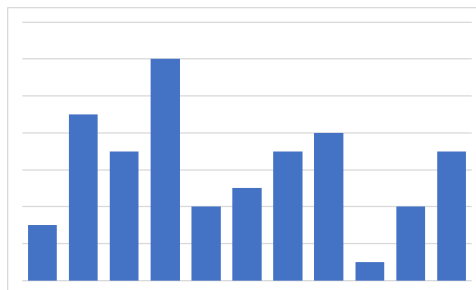
    A. $48.35
    B. $46.01
    C. $45.15
    D. $40.16

33	Belle is giving away her books this year. To make it easy for her to track the books that she will be giving away, she tallied all the books she read each month. The table below shows the data she gathered.

MONTH	BOOKS READ
January	3 books
February	9 books
March	7 books
April	12 books
May	3 books
June	4 books
July	5 books
August	7 books
September	8 books
October	1 book
November	4 books
December	7 books

Which month was missed out based on the graph?

A. February
B. March
C. May
D. November

34	Jenna is planning to go camping with her friends on October 29 to November 5, 2022. They want to rent a tent with a free mattress and a pocket wifi as inclusions. Shown in the table below are the shops and their rental rates.

SHOP	RATE PER DAY	MATTRESS (RATE PER DAY)	POCKET WIFI (RATE PER DAY)
A	$150	$18	$12
B	$175	$15	$9
C	$160	$14	$7
D	$180	$17	$8

Which of the following shops should she choose if she wants to spend as little as possible?

A. Shop A
B. Shop B
C. Shop C
D. Shop D

35 Josh wants to purchase the newest phone model online. He wants to spend as little as possible. So he made a chart showing the four shops he is choosing from. The chart he made is shown below.

Which shop should he get his new phone from if he wants to save more?
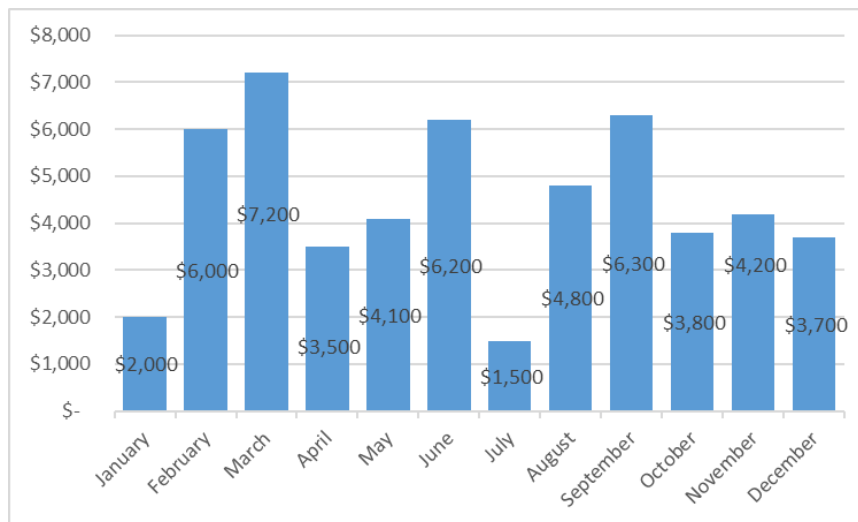
A. Shop A
B. Shop B
C. Shop C
D. Shop D

36 Six friends were assigned to different countries. The list of their monthly incomes and the tax rate per country is given in the table below.

NAME	COUNTRY	MONTHLY INCOME	TAX RATE
Joshua Smith	Brazil	$12,000	3%
Claire Evans	Singapore	$14,000	5%
Fiona Gonzales	Australia	$22,000	8%
Michael Purr	Canada	$24,000	10%
Sean Pain	France	$18,000	2%
Stella Maris	China	$20,000	6%

What is the difference between the highest and lowest amount of tax per month?

A. $1,950
B. $2,500
C. $1,400
D. $2,040

---

37 | Below shows the monthly expenses for Rucs Construction Services.

Which months have the greatest difference?

A. January and February
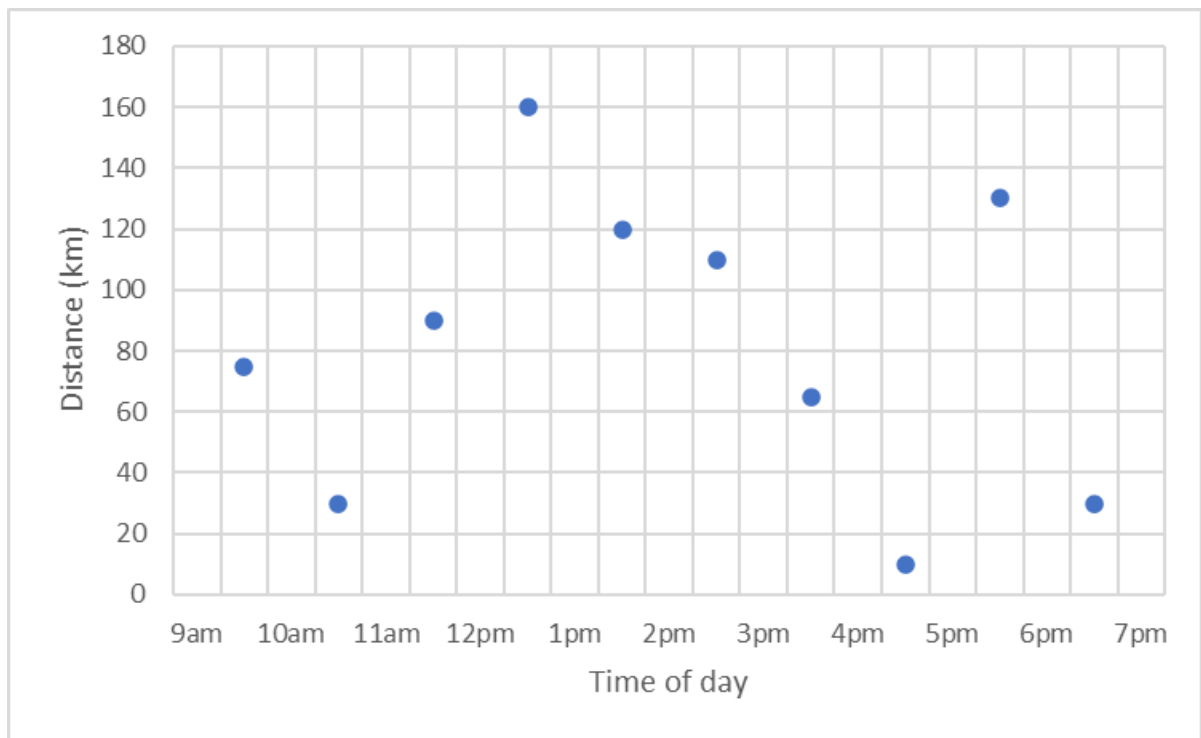B. July and August
C. April and July
D. March and May

---

38 | Justin, together with his wife and two children (ages 4 and 18), wants to spend the weekend in the amusement park. Each of them needs an admission ticket. The prices for the tickets are based on age.

CATEGORY	P1	P2	P3	FAMILY PROMO
AGE	0 to 9 yrs old	10-19 yrs old	20 yrs old above	2 adults, 1 kid
PRICE	$10	$14	$22	$50

How much is the least amount that the whole family can spend?

    A. $62
    B. $59
    C. $60
    D. $68

39   Shown in the table below is the travel data of Paul.

How far did Paul travel from 9:30 am to 6:30 pm?

    A. 920 km
    B. 750 km
    C. 650 km
    D. 820 km

40   Clark spends $30 daily for his 2-km ride from his house to his office using his own car. However, he wants to try commuting to see if he can save more. The fare for each public vehicle is given in the table below.

VEHICLE	FARE
Bus	$10 per 100 metres
Taxi	$12 per 10 metres
Train	$7 per kilometres
Light Rail	$8 per 50 metres
Watercraft	$15 per kilometres

Which public vehicle should he choose?

A. Bus
B. Train
C. Taxi
D. Watercraft