

OVERVIEW OF

RELEVANT SELECTION



AND QUESTION GUIDES





INTRODUCTION





When dealing with real-world problems, it is unusual to have only the information needed to solve the problem.

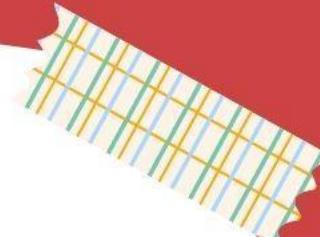
Instead, there will usually be a much larger set of data, much of which is unimportant.



RESOLVING THE PROBLEM



OVERVIEW



Questions that test this element may provide you with information that is irrelevant, redundant, or distracting.

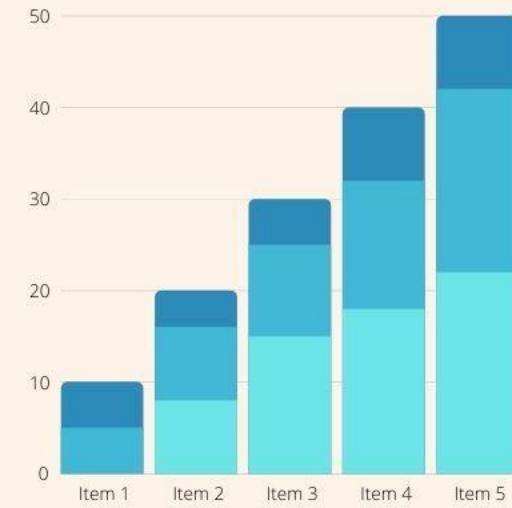
Relevant Selection, in which the aim is to pick and apply only the knowledge that is necessary and helpful in addressing the problem, is required for this type of inquiry.



The first step in resolving the problem is to identify the relevant bits of information. Let's take a look at the example questions on the next slide.



BAR GRAPH



BAR GRAPH

A poll was taken for the preference of Uber drivers' favorite car brands.



Car Brands	BMW	Toyota	Ford	Honda	Benz
No. of Votes	15	25	75	30	60

BAR GRAPH

A divided bar chart was then produced of the results, but votes for Honda were mistakenly added to other car brands .



BAR GRAPH

Which car brand were the votes of Honda added to?



- A. BMW
- B. Toyota
- C. Ford
- D. Benz





EXPLANATION

The data from the table was transferred to the bar graph to determine which has the most data. The problem is that one data were added on another data .
To find out, let us see the instructions below:

- Find the highest data on the table and on the bar graph. The answer is Ford.
- Find the sec ond highest data on the table and on the bar graph. The answer is Benz.
- Since the first two largest data's match on the table, let's now look on the third highest data. The answer is Toyota.
- The two largest data on the bar graph (Ford and Benz) are almost the same because their values are not far from each other. But notice Toyota whose bar is also close to Ford and Benz even though its value is too low compared to the two. Therefore, Honda has been added to the bar of Toyota.

B. TOYOTA

BAR GRAPH

A poll was taken for the preference of Nursery pupils' favourite colour.

The results are shown in the table.



Colours	Blue	Pink	Red	Green	Purple
No. of Votes	85	50	45	30	90

BAR GRAPH

A divided bar chart was then produced of the results, but votes for Red were mistakenly added to another color.



Which color were the votes of Red added to?

- A. Blue
- B. Pink
- C. Green
- D. Purple





EXPLANATION

The data from the table was transferred to the bar graph to determine which has the most data. The problem is that one data were added on another data . To find out, let us see the instructions below:

- Find the highest data on the table. The answer is Purple.
- Find the second highest data on the table. The answer is Blue.
- Since the first two largest data's match on the table, let's now look on the third highest data. The answer is Pink.
- The two largest data on the table (Purple and Blue) are almost the same because their values are not far from each other. But notice Pink whose bar is also close to Purple and Blue even though its value is too low compared to the two. Therefore, Red has been added to the bar of Pink.

B. PINK

BAR GRAPH

A poll was taken for the university faculties' favorite laptop brand.

The results are shown in the table.



Laptop Brand	MacBook	HP	Dell	Lenovo	ASUS
No. of Votes	75	25	15	45	35

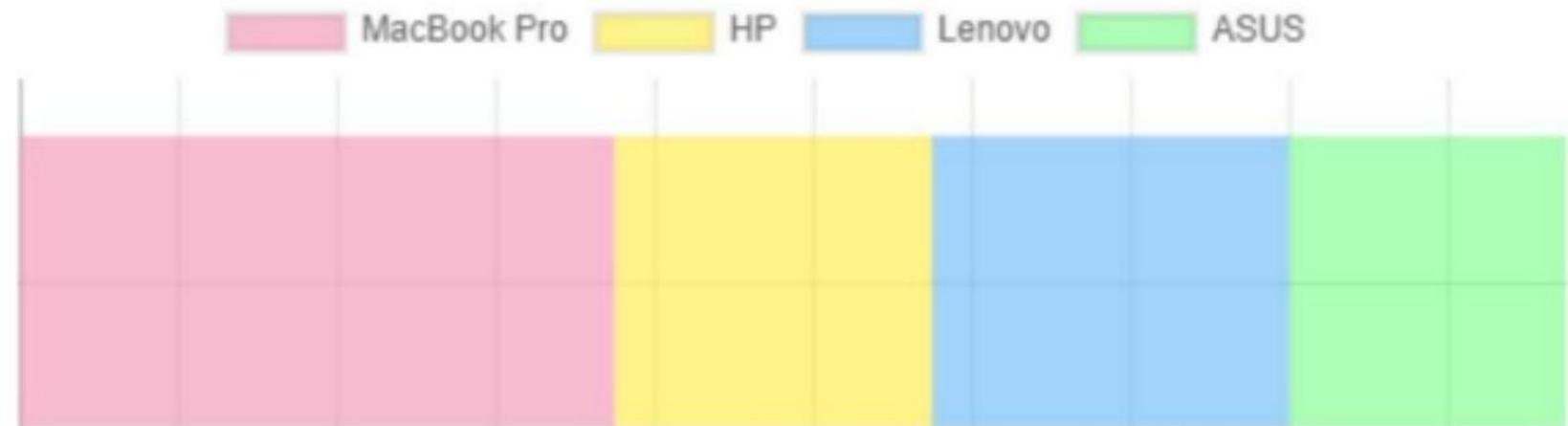
BAR GRAPH

A divided bar chart was then produced of the results, but votes for Dell were mistakenly added to another laptop.



Which laptop brand were the votes of Dell added to?

- A. MacBook
- B. Hp
- C. Lenovo
- D. ASUS





EXPLANATION

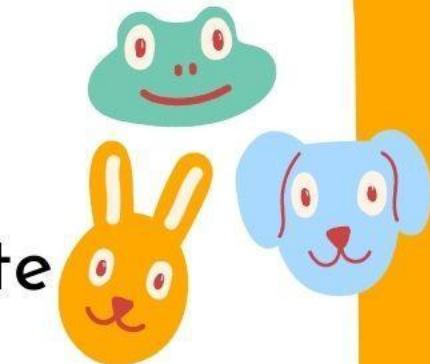
The data from the table was transferred to the bar graph to determine which has the most data. The problem is that one data were added on another data . To find out, let us see the instructions below:

- Find the highest data on the table. The answer is MacBook.
- Find the second highest data on the table. The answer is Lenovo.
- Since the first two largest data's match on the table, let's now look on the third highest data. The answer is HP.
- The two largest data on the table (MacBook and L:enovo) matches their corresponding value in the table. But notice HP whose bar is close to Lenovo. For it to make sense, add the value of Dell to the HP, you will get a 40 as an answer, which is close to Lenovo whose value is 45. Therefore, Dell has been added to the bar of HP.

B. HP

BAR GRAPH

A poll was taken for the Tennis players' favorite tennis racquet brands.



The results are shown in the table.

Racquet Brands	Dunlop	Prince	Tecnifibrel	Yonex	Wilson
No. of Votes	45	95	35	40	75

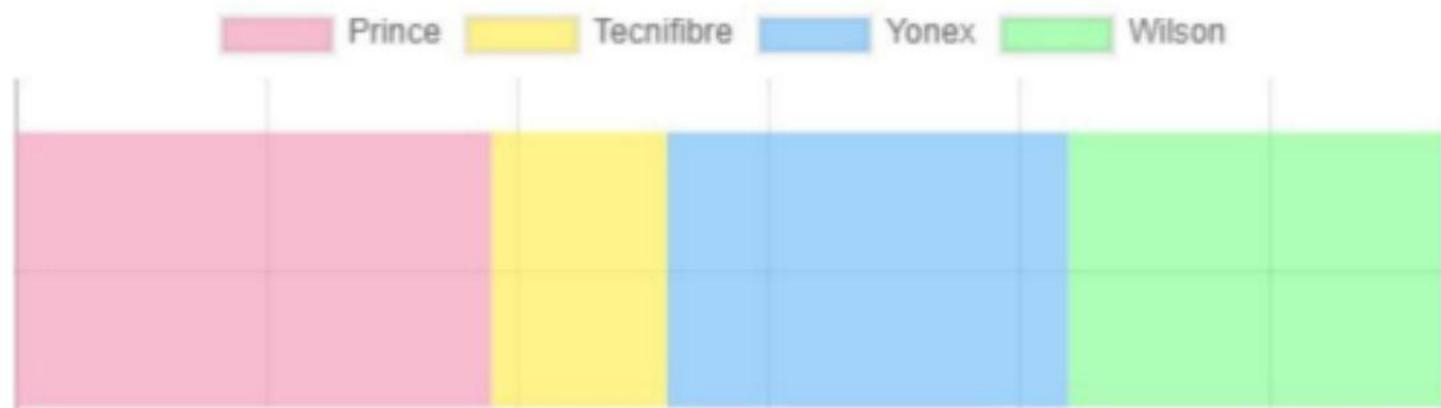
BAR GRAPH

A divided bar chart was then produced of the results, but votes for Dunlop were mistakenly added to another tennis racquet brand.



Which tennis racquet brand were the votes of Dunlop added to?

- A. Prince
- B. Tecnifibre
- C. Yonex
- D. Wilson





EXPLANATION

The data from the table was transferred to the bar graph to determine which has the most data. The problem is that one data were added on another data . To find out, let us see the instructions below:

- Find the highest data on the table. The answer is Prince.
- Find the second highest data on the table. The answer is Wilson.
- Since the first two largest data's match on the table, let's now look on the third highest data. The answer is Yonex.
- The two largest data on the table (Prince and Wilson) matches their corresponding value in the table. But notice Yonex whose bar is close to Prince. For it to make sense, add the value of Dunlop to the Yonex, you will get an 85 as an answer, which is close to Prince whose value is 95. Therefore, Dunlop has been added to the bar of Yonex.

C. YONEX

BAR GRAPH

A poll was taken for the preference of fishermen's favourite sea animals.
The results are shown in the table.



Sea Animals	Dolphin	Sea Turtle	Seagull	Whale	Octopus
No. of Votes	86	48	72	56	28

BAR GRAPH

A divided bar chart was then produced of the results, but votes for octopus were mistakenly added to another sea animal.



Which laptop brand were the votes of Dell added to?

- A. Dolphin
- B. Sea Turtle
- C. Seagull
- D. Whale





EXPLANATION

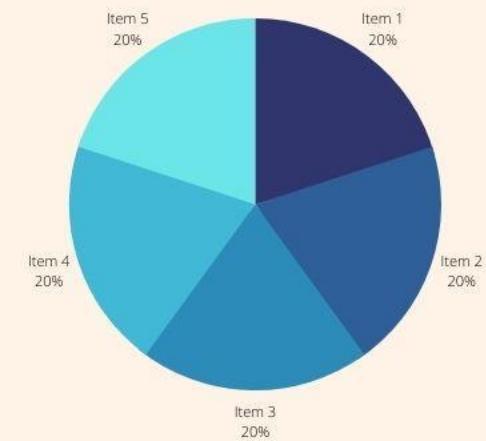
The data from the table was transferred to the bar graph to determine which has the most data. The problem is that one data were added on another data . To find out, let us see the instructions below:

- Find the highest data on the table. The answer is Dolphin.
- Find the second and third highest data on the table. The answer is Seagull and Whale.
- Since the first three largest data's match on the table, let's now look on the fourth highest data. The answer is Sea Turtle.
- The three largest data on the table matches their corresponding value in the table. But notice Sea Turtle whose bar is close to Seagull. For it to make sense, add the value of Octopus to the Sea Turtle, you will get a 76 as an answer, which is close to Seagull whose value is 72. Therefore, Octopus has been added to the bar of Seagull.

C. SEA TURTLE



PIE GRAPH



PIE GRAPH



The table below shows the number of people who watched a specific movie after the day's latest releases.

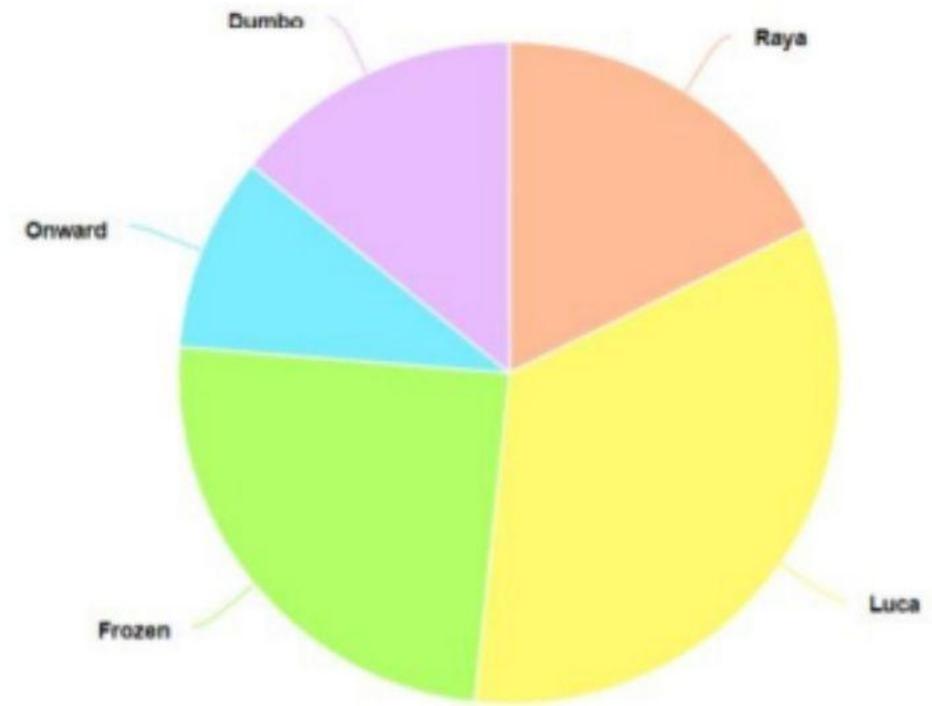
Variable	Raya	Luca	Frozen	Onward	Dumbo
Value	1940	2680	3700	1040	1550

PIE GRAPH

They transferred the data to a pie chart but put one of the lines of the pie chart in the wrong place.



- A. Raya and Luca
- B. Luca and Frozen
- C. Frozen and Onward
- D. Onward and Dumbo
- E. Dumbo and Raya





EXPLANATION

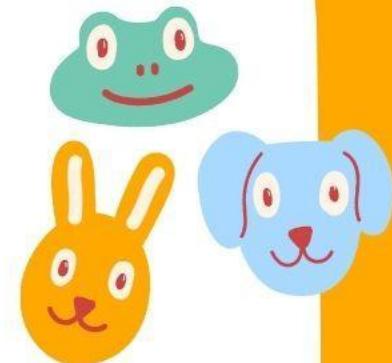
The data from the table was transferred to the pie graph to determine which has the most data. The problem is that two data points switched positions. To find out, let us see the instructions below.

- Compare the data from the table one by one.
- Assume you discovered that Luca is too big in comparison to Frozen. Now compare Raya and Frozen data points to the points that follow.
- Following the instructions, compare the Raya next to its point which is the Dumbo. Because Raya is larger than Dumbo, the data from both points make sense. As a result, Luca and the Raya are not the answer.
- When you compare Frozen and Onward, their sizes do not correspond to those on the table. As a result, the answer is Luca and Frozen because they are the ones that doesn't match the data's from the table.

B. LUCA AND FROZEN

PIE GRAPH

Researchers conducted a survey among university students to determine which subject they enjoy the most. The information they gathered is shown in the table.

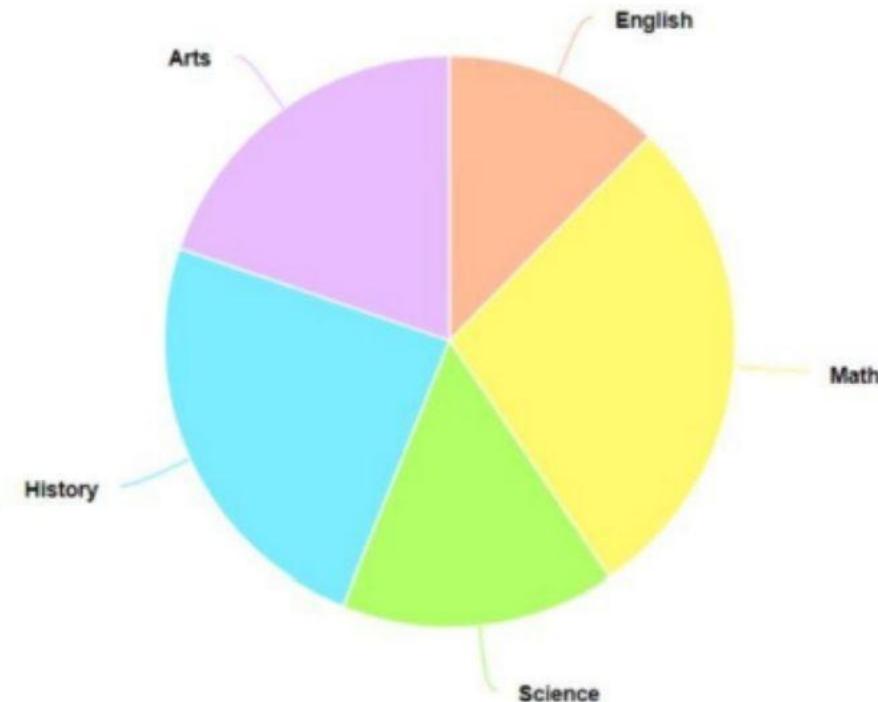


Variable	English	Math	Science	History	Arts
Value	5250	2300	2900	4500	3680

PIE GRAPH

They transferred the data to a pie chart but put one of the lines of the pie chart in the wrong place.

- A. History and Arts
- B. Arts and English
- C. English and Math
- D. Math and Science
- E. Science and History





EXPLANATION

The data from the table was transferred to the pie graph to determine which has the most data. The problem is that two data points switched positions. To find out, let us see the instructions below.

- Compare the data from the table one by one.
- Assume you discovered that English is too low in comparison to math and Arts. Now compare the Math and Arts data points to the points that follow.
- Following the instructions, compare the Arts next to its point which is the History. Because History is larger than Arts, the data from both points make sense. As a result, English and Arts are not the answer.
- When you compare Math and Science, their sizes do not correspond to those on the table. As a result, the answer is English and Math because they are the ones that doesn't match the data's from the table.

C. ENGLISH AND MATH

PIE GRAPH

Garry's Store is the best place to purchase musical instruments. They created a table below, which shows the sales of various items during the month of January.

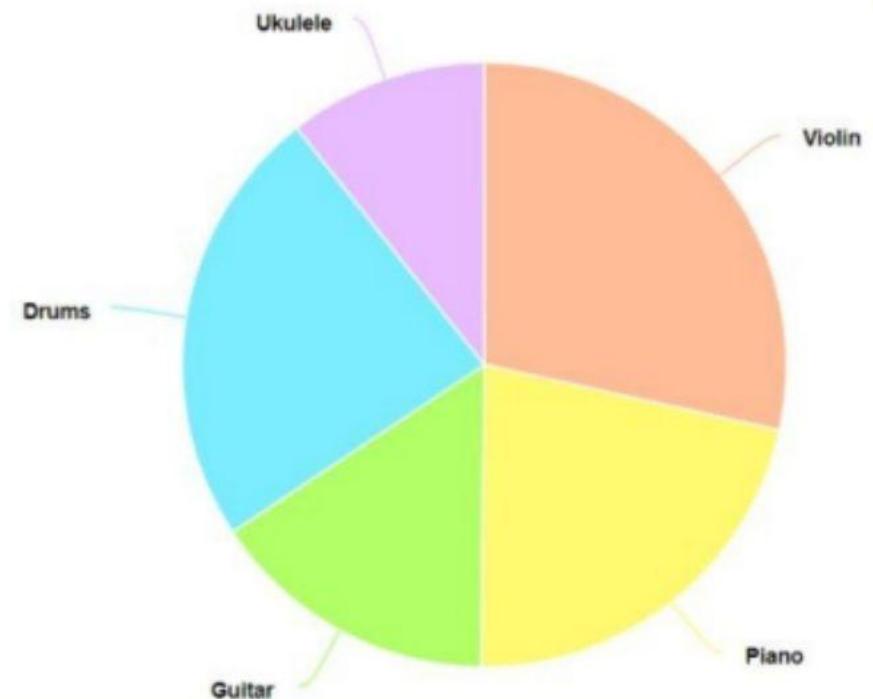
Variable	Violin	Piano	Guitar	Drums	Ukulele
Value	10900	8300	9050	5930	4080



PIE GRAPH

They transferred the data to a pie chart but put one of the lines of the pie chart in the wrong place.

- A. Drums and Ukulele
- B. Ukulele and Violin
- C. Violin and Piano
- D. Piano and Guitar
- E. Guitar and Drums





EXPLANATION

The data from the table was transferred to the pie graph to determine which has the most data. The problem is that two data points switched positions. To find out, let us see the instructions below.

- Compare the data from the table one by one.
- Assume you discovered that Guitar is too low in comparison to Piano and Drums. Compare the Piano and Drums data points to the points that follow.
- Following the instructions, compare the Piano next to its point which is the Violin. Because Violin is larger than Piano, the data from both points make sense. As a result, Guitar and Piano are not the answer.
- When you compare Drums and Ukulele, their sizes do not correspond to those on the table because the Drums is too big. As a result, the answer is Guitar and Drums because they are the ones that doesn't match the data's from the table.

E. GUITAR AND DRUMS

PIE GRAPH

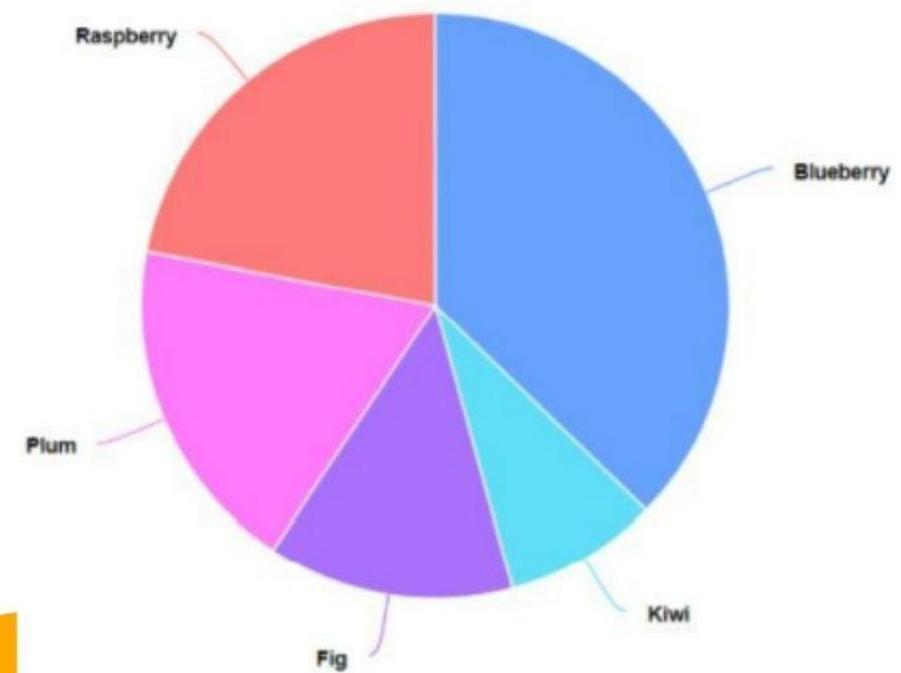
Jojo went to the market and bought five different fruits. The table below lists the number of different fruits that are kept in a hamper.

Variable	Blueberry	Kiwi	Fig	Plum	Raspberry
Value	130	50	80	110	220

PIE GRAPH

They transferred the data to a pie chart but put one of the lines of the pie chart in the wrong place.

- A. Kiwi and Fig
- B. Fig and Plum
- C. Plum and Raspberry
- D. Raspberry and Blueberry
- E. Blueberry and Kiwi





EXPLANATION

The data from the table was transferred to the pie graph to determine which has the most data. The problem is that two data points switched positions. To find out, let us see the instructions below.

- Compare the data from the table one by one.
- Assume you discovered that Blueberry is too high in comparison to Raspberry and Kiwi. Compare the Raspberry and Kiwi data points to the points that follow.
- Following the instructions, compare the Kiwi next to its point which is the Fig. Because Fig is larger than Kiwi, the data from both points make sense. As a result, Blueberry and Kiwi are not the answer.
- When you compare Raspberry and Plum, their sizes do not correspond to those on the table because the Raspberry is too small for its size in the table. As a result, the answer is Raspberry and Blueberry because they are the ones that doesn't match the data's from the table.

D. RASPBERRY AND BLUEBERRY

PIE GRAPH

For the year 2021, the table below shows the percentage of buyers of five different soap brands.

Variable	Aveeno	Ivory	Cetaphil	Dove	Safeguard
Value	80	70	100	40	20

PIE GRAPH

They transferred the data to a pie chart but put one of the lines of the pie chart in the wrong place.

- A. Aveeno and Ivory
- B. Ivory and Cetaphil
- C. Cetaphil and Dove
- D. Dove and Safeguard
- E. Safeguard and Aveeno





EXPLANATION

The data from the table was transferred to the pie graph to determine which has the most data. The problem is that two data points switched positions. To find out, let us see the instructions below.

- Compare the data from the table one by one.
- Assume you discovered that Ivory is too high in comparison to Aveeno and Cetaphil. Compare the Aveeno and Cetaphil data points to the points that follow.
- Following the instructions, compare the Cetaphil next to its point which is the Dove. Because Cetaphil is larger than Dove, the data from both points make sense. As a result, Ivory and Cetaphil are not the answer.
- When you compare Aveeno and Safeguard, their sizes do not correspond to those on the table because the Aveeno is too small for its size in the table. As a result, the answer is Aveeno and Ivory because they are the ones that doesn't match the data's from the table.

A. AVEENO AND IVORY



TICKET COMBO

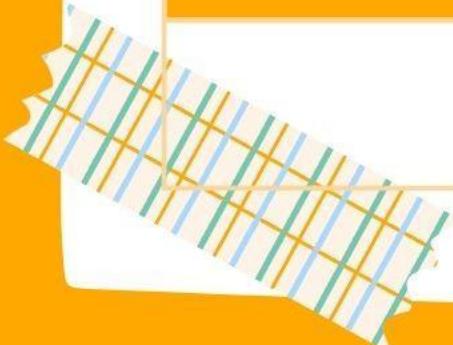


TICKET COMBO



The prices for a box office movie marathon ticket are shown in the table below.

Pass for 1 day	Pass for 6 days (consecutive)	Pass for 9 days (consecutive)
\$15	\$80	\$120



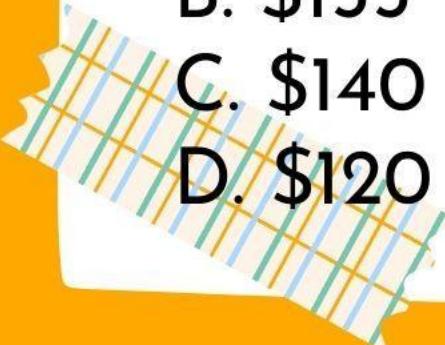
TICKET COMBO



Roshmel will need a ticket for the following days of the month: 2,3,4,5,6,7,15,16,19,20,21

How much is the cheapest valid combination Roshmel could use?

- A. \$170
- B. \$155
- C. \$140
- D. \$120





EXPLANATION

The problem requires you to find the cheapest combination of prices. To find out, let us see the instructions below.

- Count the total number of days that is needed in a month. In this problem, the total number of days is 11 days.
- We have three categories to choose from, which is \$15 per day, \$80 for 6 days and \$120 for 9 days. The higher the set of days, the cheaper it gets.
- To get the answer, we must subtract the total number of days to the highest set until it goes to the lowest set. But also take note if the number of days are continuous to meet the required number of days of each category.
- In this problem, the only continuous days are 2,3,4,5,6 and 7. They have a total of 6 days. Therefore, you can use the \$80 for 6 days category. Subtract 11 to 6 to get the number of remaining days.
- There are no 9 or 6 continuous days and so we will have to use the \$15 per day category in the remaining days. Multiply \$15 to 5 days and add the answer to \$80.

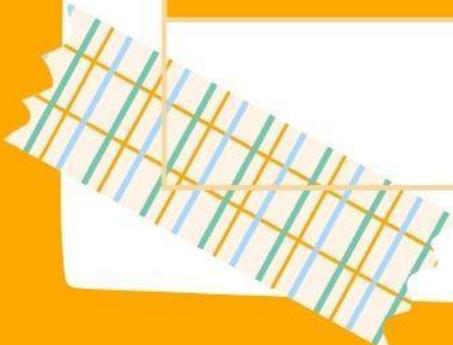
B. \$155

TICKET COMBO



The prices for Snoop Dog's Concert ticket are shown in the table below.

Pass for 1 day	Pass for 4 days (consecutive)	Pass for 7 days (consecutive)
\$5	\$15	\$25



TICKET COMBO



Esther will need a ticket for the following days of the month:

3,4,5,6,7,8,9,11,12,13

How much is the cheapest valid combination Esther could use?

- A. \$45
- B. \$30
- C. \$40
- D. \$35





EXPLANATION

The problem requires you to find the cheapest combination of prices. To find out, let us see the instructions below.

- Count the total number of days that is needed in a month. In this problem, the total number of days is 10 days.
- We have three categories to choose from, which is \$5 per day, \$15 for 4 days and \$25 for 7 days. The higher the set of days, the cheaper it gets.
- To get the answer, we must subtract the total number of days to the highest set until it goes to the lowest set. But also take note if the number of days are continuous to meet the required number of days of each category.
- In this problem, the only continuous days are 3,4,5,6,7,8 and 9 days. They have a total of 7 days. Therefore, you can use the \$25 for 7 days category. Subtract 10 to 7 to get the number of remaining days.
- There are no 7 or 4 continuous days and so we will have to use the \$5 per day category in the remaining days. Multiply \$5 to 3 days and add the answer to \$25.

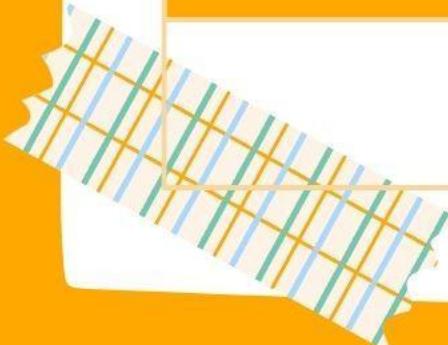
c. \$40

TICKET COMBO



The prices for Justin's Concert ticket are shown in the table below.

Pass for 1 day	Pass for 6 days (consecutive)	Pass for 9 days (consecutive)
\$15	\$80	\$150



TICKET COMBO



Austin will need a ticket for the following days of the month:

1,2,3,4,5,12,13,14,15,16,17,18,19,20

How much is the cheapest valid combination Austin could use?

- A. \$225
- B. \$250
- C. \$210
- D. \$270





EXPLANATION

The problem requires you to find the cheapest combination of prices. To find out, let us see the instructions below.

- Count the total number of days that is needed in a month. In this problem, the total number of days is 14 days.
- We have three categories to choose from, which is \$15 per day, \$80 for 6 days and \$150 for 9 days. The higher the set of days, the cheaper it gets.
- To get the answer, we must subtract the total number of days to the highest set until it goes to the lowest set. But also take note if the number of days are continuous to meet the required number of days of each category.
- In this problem, the only continuous days are 12,13,14,15,16,17,18,19 and 20 days. They have a total of 9 days. Therefore, you can use the \$150 for 9 days category. Subtract 14 to 9 to get the number of remaining days.
- There are no 7 or 4 continuous days and so we will have to use the \$15 per day category in the remaining days. Multiply \$15 to 5 days and add the answer to \$150.

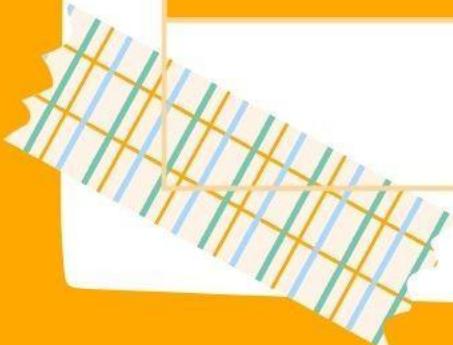
A. \$225

TICKET COMBO



The prices for Austria Tech Exhibit tickets are shown in the table below.

Pass for 1 day	Pass for 5 days (consecutive)	Pass for 10 days (consecutive)
\$1	\$4	\$6



TICKET COMBO



Alyanna will need a ticket for the following days of the month:

5,6,7,8,9,11,12,13,14

How much is the cheapest valid combination Alyanna could use?

- A. \$20
- B. \$12
- C. \$8
- D. \$10





EXPLANATION

The problem requires you to find the cheapest combination of prices. To find out, let us see the instructions below.

- Count the total number of days that is needed in a month. In this problem, the total number of days is 9 days.
- We have three categories to choose from, which is \$1 per day, \$4 for 5 days and \$6 for 10 days. The higher the set of days, the cheaper it gets.
- To get the answer, we must subtract the total number of days to the highest set until it goes to the lowest set. But also take note if the number of days are continuous to meet the required number of days of each category.
- In this problem, the only continuous days are 5,6,7,8 and 9 days. They have a total of 5 days. Therefore, you can use the \$4 for 5 days category. Subtract 9 to 5 to get the number of remaining days.
- There are no 7 or 4 continuous days and so we will have to use the \$1 per day category in the remaining days. Multiply \$1 to 4 days and add the answer to \$4.

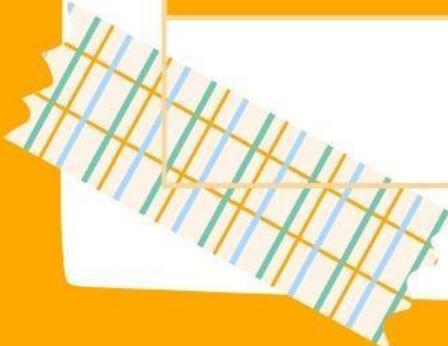
c. \$8

TICKET COMBO



The prices for Brazil Soccer Convention tickets are shown in the table below.

Pass for 1 day	Pass for 5 days (consecutive)	Pass for 10 days (consecutive)
\$2	\$8	\$14



TICKET COMBO



Justin will need a ticket for the following days of the month:

1,2,3,4,5,6,7,8,9,10

How much is the cheapest valid combination Justin could use?

- A. \$20
- B. \$10
- C. \$16
- D. \$14





EXPLANATION

The problem requires you to find the cheapest combination of prices. To find out, let us see the instructions below.

- Count the total number of days that is needed in a month. In this problem, the total number of days is 10 days.
- We have three categories to choose from, which is \$2 per day, \$8 for 5 days and \$14 for 10 days. The higher the set of days, the cheaper it gets.
- To get the answer, we must subtract the total number of days to the highest set until it goes to the lowest set. But also take note if the number of days are continuous to meet the required number of days of each category.
- In this problem, the only continuous days are 1,2,3,4,5,6,7,8,9 and 10 days. They have a total of 10 days. Therefore, you can use the \$14 for 10 days category. Since there are no remaining days, the final answer is \$14.

D. \$14



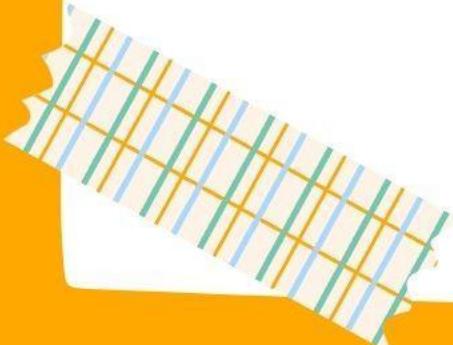
MINIMUM SCORE



MINIMUM SCORE



Eight competitors in an eating competition receive up to 15 points in each round. The results for the first three rounds are shown in the table on the next slide.



Name	Round 1	Round 2	Round 3
Jacob	11	12	1
Nima	3	12	6
Steve	5	8	7
Alex	3	9	15
Leroy	9	4	6
Nav	12	13	6
Tom	15	11	9
Jen	14	1	13

MINIMUM SCORE



One competitor will definitely win the competition outright if they score enough points in the fourth and final round. What is the minimum score this competitor needs to be guaranteed the win?

- A. 13
- B. 11
- C. 10
- D. 12





EXPLANATION

The problem requires you to solve for the minimum possible score a competitor requires to be guaranteed a win. To find out, let us see the instructions below.

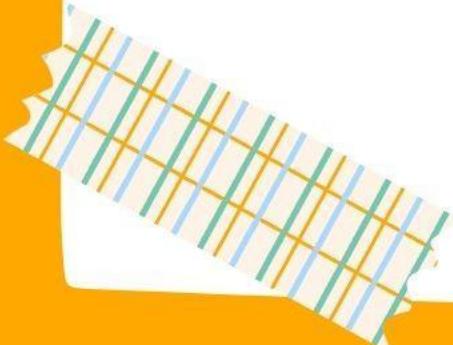
- Look for the competitor who got the highest and second highest points after round 3. To do this, calculate the total points in round 3. On the next slide, you can see that Tom got the highest point at 35 and Nav as the second highest at 31.
- Next is to find the maximum possible points in round 4 for each competitor. The maximum points they can get in round 4 is 15 points.
- Add the total points with the maximum points in round 4. It will result to Tom having a total of 50 points and Nav having a total of 46 points.
- If points will be maximized at round 4, there will be a difference of 4 points from the possible total points of Tom and Nav.
- Now, we can subtract the maximum score in round 4 which is 15 by 4 points. we'll get 11 points and then add 1 point to get the minimum score Tom can guarantee his win.
- The answer will be 12.

D. 12

Name	Round 1	Round 2	Round 3	Total Points after Round3	Max. Points in Round4	Possible Total Points
Jacob	11	12	1	24	15	39
Nima	3	12	6	21	15	36
Steve	5	8	7	20	15	35
Alex	3	9	15	27	15	42
Leroy	9	4	6	19	15	34
Nav	12	13	6	31	15	46
Tom	15	11	9	35	15	50
Jen	14	1	13	28	15	43

MINIMUM SCORE

Eight competitors in a typing competition receive up to 10 points in each round. The results for the first three rounds are shown in the table on the next slide.



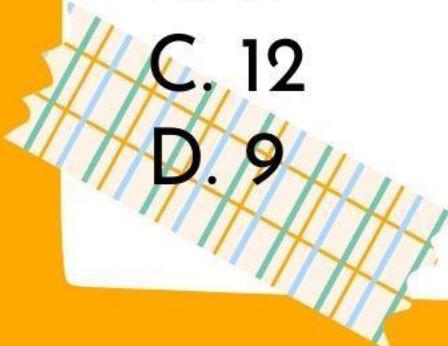
Name	Round 1	Round 2	Round 3
Jacob	8	4	2
Xyon	6	9	3
Rhylle	4	7	5
Ernest	2	8	7
John	3	5	8
Mark	2	6	7
Ken	7	8	2
Jomar	4	5	2

MINIMUM SCORE



One competitor will definitely win the competition outright if they score enough points in the fourth and final round. What is the minimum score that this competitor needs to be guaranteed the win?

- A. 10
- B. 11
- C. 12
- D. 9





EXPLANATION

The problem requires you to solve for the minimum possible score a competitor requires to be guaranteed a win. To find out, let us see the instructions below.

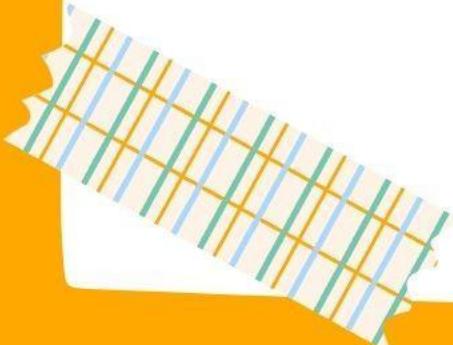
- Look for the competitor who got the highest and second highest points after round 3. To do this, calculate the total points in round 3. On the next slide, you can see that Xynon got the highest points at 18 followed by Ernest and Ken at 17 points.
- Next is to find the maximum possible points in round 4 for each competitor. The maximum points they can get in round 4 is 10 points.
- Add the total points with the maximum points in round 4. It will result to Xynon having a total of 28 points, Ernest and Ken having a total of 27 points.
- If points will be maximized at round 4, there will be a difference of 1 point from the total points of Xynon, Ernest and Ken.
- Now, we can subtract the maximum score in round 4 which is 10 by 1 point. we'll get 9 points and then add 1 point to get the minimum score Xynon can guarantee his win.
- The answer will be 10

A. 10

Name	Round 1	Round 2	Round 3	Total after Round 3	Max. Points in Round 4	Possible Total Points
Jacob	8	4	2	14	10	24
Xyon	6	9	3	18	10	28
Rhylle	4	7	5	16	10	26
Ernest	2	8	7	17	10	27
John	3	5	8	16	10	26
Mark	2	6	7	15	10	25
Ken	7	8	2	17	10	27
Jomar	4	5	2	11	10	21

MINIMUM SCORE

Eight competitors in Taekwondo competition receive up to 20 points in each round. The results for the first three rounds are shown on the next slide.



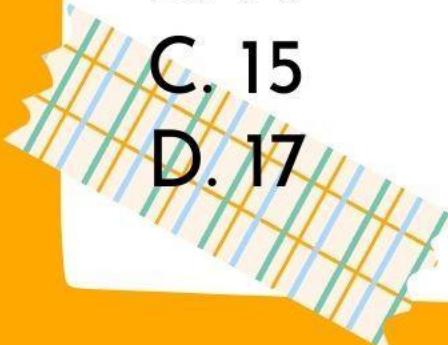
Name	Round 1	Round 2	Round 3
Kim	20	15	14
Sok	16	17	18
Xandra	14	15	13
Shanaia	13	18	16
Jan	17	19	17
James	19	20	19
Dan	15	12	15
Joseph	18	16	20

MINIMUM SCORE



One competitor will definitely win the competition outright if they score enough points in the fourth and final round. What is the minimum score that this competitor needs to be guaranteed the win?

- A. 16
- B. 14
- C. 15
- D. 17





EXPLANATION

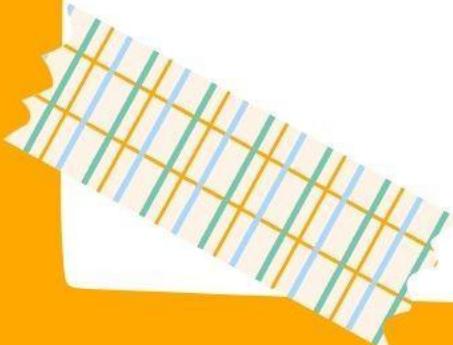
The problem requires you to solve for the minimum possible score a competitor requires to be guaranteed a win. To find out, let us see the instructions below.

- Look for the competitor who got the highest and second highest points after round 3. To do this, calculate the total points in round 3. On the next slide, you can see that James got the highest point at 58 and Joseph as the second highest at 74.
- Next is to find the maximum possible points in round 4 for each competitor. The maximum points they can get in round 4 is 20 points.
- Add the total points with the maximum points in round 4. It will result to James having a total of 78 points and Joseph having a total of 74 points.
- If points will be maximized at round 4, there will be a difference of 4 points from the possible total points of James and Joseph.
- Now, we can subtract the maximum score in round 4 which is 20 by 4 points. we'll get 11 points and then add 1 point to get the minimum score James can guarantee his win.
- The answer will be 17

Name	Round 1	Round 2	Round 3	Total after Round 3	Max. Points in Round 4	Possible Total Points
Kim	20	15	14	49	20	69
Sok	16	17	18	51	20	71
Xandra	14	15	13	42	20	62
Shanaia	13	18	16	47	20	67
Jan	17	19	17	53	20	73
James	19	20	19	58	20	78
Dan	15	12	15	42	20	62
Joseph	18	16	20	54	20	74

MINIMUM SCORE

Eight competitors in a Math Competition receive up to 12 points in each round. The results for the first three rounds are shown in the table on the next slide.



Name	Round 1	Round 2	Round 3
Mary	10	6	9
Robert	7	8	8
John	4	3	6
Michael	8	7	7
Richard	9	5	4
Linda	5	9	10
Jennifer	6	10	5
Karen	3	4	3

MINIMUM SCORE



One competitor will definitely win the competition outright if they score enough points in the fourth and final round. What is the minimum score that this competitor needs to be guaranteed the win?

- A. 8
- B. 9
- C. 10
- D. 7



EXPLANATION

The problem requires you to solve for the minimum possible score a competitor requires to be guaranteed a win. To find out, let us see the instructions below.

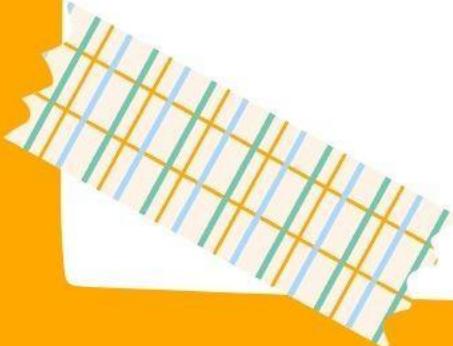
- Look for the competitor who got the highest and second highest points after round 3. To do this, calculate the total points in round 3. On the next slide, you can see that Mary got the highest point at 25 and Linda as the second highest at 24.
- Next is to find the maximum possible points in round 4 for each competitor. The maximum points they can get in round 4 is 12 points.
- Add the total points with the maximum points in round 4. It will result to Mary having a total of 37 points and Linda having a total of 36 points.
- If points will be maximized at round 4, there will be a difference of 1 point from the possible total points of Mary and Linda.
- Now, we can subtract the maximum score in round 4 which is 12 by 1 point. we'll get 11 points and then add 1 point to get the minimum score Mary can guarantee her win.
- The answer will be 12.

Name	Round 1	Round 2	Round 3	Total after Round3	Max. Points in Round 4	Possible Total Points
Mary	10	6	9	25	12	37
Robert	7	8	8	23	12	35
John	4	3	6	13	12	25
Michael	8	7	7	22	12	34
Richard	9	5	4	18	12	30
Linda	5	9	10	24	12	36
Jennifer	6	10	5	21	12	33
Karen	3	4	3	10	12	22

MINIMUM SCORE



Eight competitors in a Spelling Competition receive up to 13 points in each round. The results for the first three rounds are shown in the table on the next slide.



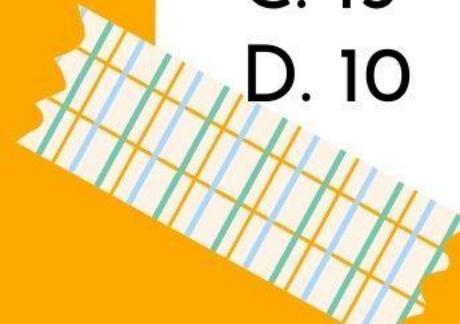
Name	Round 1	Round 2	Round 3
Donald	5	9	7
Ashley	7	5	12
Paul	9	10	13
Emily	11	8	9
Dorothy	12	13	8
Kenneth	6	11	6
Kevin	8	12	11
Carol	13	7	10

MINIMUM SCORE



One competitor will definitely win the competition outright if they score enough points in the fourth and final round. What is the minimum score that this competitor needs to be guaranteed the win?

- A. 11
- B. 12
- C. 13
- D. 10





EXPLANATION

The problem requires you to solve for the minimum possible score a competitor requires to be guaranteed a win. To find out, let us see the instructions below.

- Look for the competitor who got the highest and second highest points after round 3. To do this, calculate the total points in round 3. On the next slide, you can see that Dorothy got the highest point at 33 and Paul as the second highest at 32.
- Next is to find the maximum possible points in round 4 for each competitor. The maximum points they can get in round 4 is 13 points.
- Add the total points with the maximum points in round 4. It will result to Dorothy having a total of 46 points and Paul having a total of 45 points.
- If points will be maximized at round 4, there will be a difference of 1 point from the possible total points of Dorothy and Paul.
- Now, we can subtract the maximum score in round 4 which is 13 by 1 point. we'll get 12 points and then add 1 point to get the minimum score Dorothy can guarantee her win.
- The answer will be 13.

Name	Round 1	Round 2	Round 3	Total after Round 3	Max. Points in Round 4	Possible Total Points
Donald	5	9	7	21	13	34
Ashley	7	5	12	24	13	37
Paul	9	10	13	32	13	45
Emily	11	8	9	28	13	41
Dorothy	12	13	8	33	13	46
Kenneth	6	11	6	23	13	36
Kevin	8	12	11	31	13	44
Carol	13	7	10	30	13	43



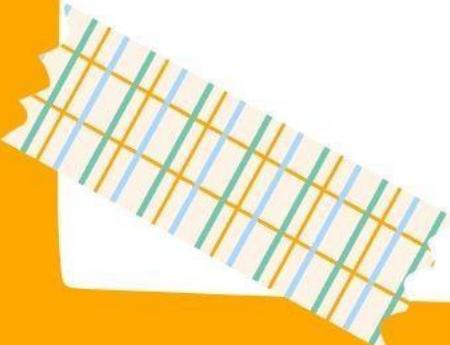
CHEAPEST STORE



CHEAPEST STORE



Esther wants to buy 9 apples. There are 4 shops that sell the product she wants. The price of the apples and any special offers are shown in the table on the next slide.



Shop	Standard Price of Apples	Special Offer
A	\$4	Buy 5 Get 2 Free
B	\$8	Flat Rate of 25%
C	\$2	Buy 10 Get 1 Free
D	\$6	15% Off your 4th Item

CHEAPEST STORE

Esther wants to buy her apples from the same shop and spend as little as possible.

1. Which shop should Esther buy all her apples from?
A. Shop A
B. Shop B
C. Shop C
D. Shop D

2. What is the difference in price between the cheapest and most expensive option?
A. \$36
B. \$26
C. \$38
D. \$46





EXPLANATION

The problem requires you to find the shop that offers the best discount for the buyers to save money. To find out, let us see the instructions below.

- Compute for the total bill of the shops individually:

◦ Shop A: $5+2$ pcs = \$20;	2 pcs = \$8;	\$20+\$8=\$28	TOTAL: \$28
◦ Shop B: 9 pcs=\$72;	25% of \$72=\$18;	\$72-\$18=\$54	TOTAL: \$54
◦ Shop C: 9 pcs=\$18			TOTAL: \$18
◦ Shop D: 15% of \$6=\$0.9; \$6-\$0.9=\$5.1; 2 pcs=\$10.2;	3+3 pcs=\$36; \$1pc=\$6;	\$36+\$10.2+\$6=\$52.5	TOTAL: \$52.2

- The lowest price offered is from Shop C which has a total of \$18.

C. SHOP C

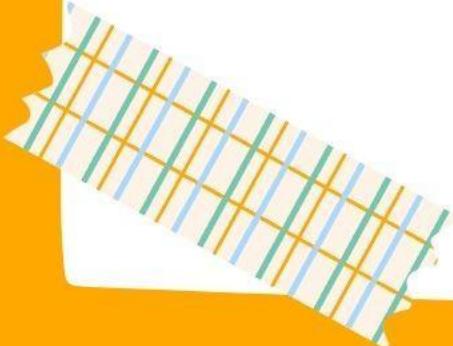
- To get the answer on number 2, subtract the highest price (\$54) to the lowest price (\$18). You'll get \$36.

A. \$36

CHEAPEST STORE



Dan wants to buy 2 pouches. There are 4 shops that sell the product that he wants. The price of the pouch and special offers are shown in the table on the next slide.



Shop	Standard Price of Apples	Special Offer
A	\$5	30% Off
B	\$3	Buy 2 Get 30% Off
C	\$6	Buy 1 Get 1 Free
D	\$4	Flat Rate 50% Off

CHEAPEST STORE



Dan wants to buy his pouches from the same shop and spend as little as possible.

1. Which shop should Dan buy all his pears from?
 - A. Shop A
 - B. Shop B
 - C. Shop C
 - D. Shop D

2. What is the difference in price between the cheapest and most expensive option?
 - A. \$1
 - B. \$5
 - C. \$2
 - D. \$3



EXPLANATION

The problem requires you to find the shop that offers the best discount for the buyers to save money. To find out, let us see the instructions below.

- Compute for the total bill of the shops individually:

◦ Shop A: 2pcs = \$10;	30% of \$10 = \$3;	\$10 - \$3 = \$7	TOTAL: \$7
◦ Shop B: 2pcs = \$6;	30% of \$6 = \$1.8;	\$6 - \$1.8 = \$4.2	TOTAL: \$4.2
◦ Shop C: 1+1 pc = \$6			TOTAL: \$6
◦ Shop D: 2pcs = \$8;	50% off of \$8 = \$4		TOTAL: \$4

- The lowest price offered is from Shop D which has a total of \$4.

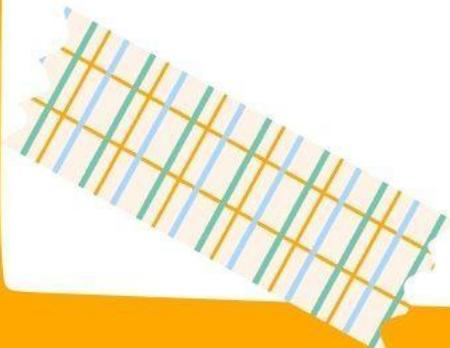
D. SHOP D

- To get the answer on number 2, subtract the highest price (\$7) to the lowest price (\$4). You'll get \$3.

D. \$3

CHEAPEST STORE

Zack wants to buy 9 folders. There are 4 shops that sell the product that he wants. The price of the folders and special offers are shown in the table on the next slide.



Shop	Standard Price of Apples	Special Offer
A	\$1.5	No Special Offers
B	\$3	Buy 2 Get 1 Free
C	\$2	Buy 1 Get 1 Free
D	\$2.5	Flat Rate 60% Off

CHEAPEST STORE

Zack wants to buy his Folders from the same shop and spend as little as possible.

1. Which shop should Zack buy all his pears from?
A. Shop A
B. Shop B
C. Shop C
D. Shop D

2. What is the difference in price between the cheapest and most expensive option?
A. \$13
B. \$9
C. \$7
D. \$5





EXPLANATION

The problem requires you to find the shop that offers the best discount for the buyers to save money. To find out, let us see the instructions below.

- Compute for the total bill of the shops individually:

◦ Shop A: 9pcs = \$13.5	TOTAL: \$13.5
◦ Shop B: $6+3$ pcs=\$18	TOTAL: \$18
◦ Shop C: $4+4$ pcs=\$8; $1pc=\$2$; $\$8+\$2=\$10$	TOTAL: \$10
◦ Shop D: 9pcs=\$22.5; 60% of \$22.5=\$13.5; $\$22.5-\$13.5=\$9$	TOTAL: \$9

- The lowest price offered is from Shop D which has a total of \$9.

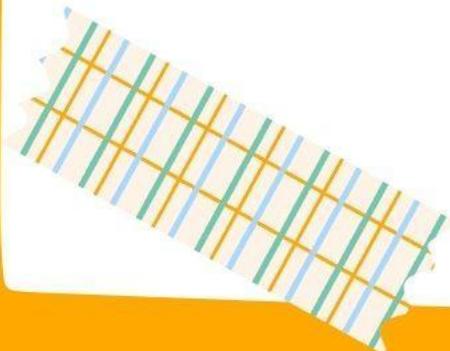
D. SHOP D

- To get the answer on number 2, subtract the highest price (\$18) to the lowest price (\$9). You'll get \$9.

B. \$9

CHEAPEST STORE

John wants to buy 10 plates. There are 4 shops that sell the product that he wants. The price of the Plates and special offers are shown in the table on the next slide.



Shop	Standard Price of Apples	Special Offer
A	\$2	Buy 4 Get 1 Free
B	\$1	No Special Offer
C	\$3	Buy 1 Get 1 Free
D	\$1.5	Flat Rate 40% Off

CHEAPEST STORE

John wants to buy his Plates from the same shop and spend as little as possible.

1. Which shop should John buy all his pears from?
A. Shop A
B. Shop B
C. Shop C
D. Shop D

2. What is the difference in price between the cheapest and most expensive option?
A. \$9
B. \$3
C. \$7
D. \$10





EXPLANATION

The problem requires you to find the shop that offers the best discount for the buyers to save money. To find out, let us see the instructions below.

- Compute for the total bill of the shops individually:

- Shop A: $8+2\text{pcs} = \$16$

TOTAL: \$16

- Shop B: $10\text{pcs}=\$10$

TOTAL: \$10

- Shop C: $5+5 \text{ pcs}=\$15;$

TOTAL: \$15

- Shop D: $10\text{pcs}=\$15; \quad 40\% \text{ of } \$15=\$6; \quad \$15-\$6=\9

TOTAL: \$9

- The lowest price offered is from Shop D which has a total of \$9.

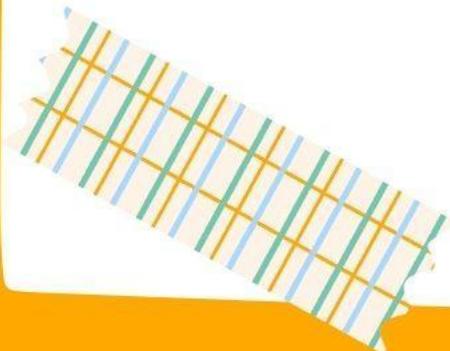
D. SHOP D

- To get the answer on number 2, subtract the highest price (\$16) to the lowest price (\$9). You'll get \$9.

c. \$7

CHEAPEST STORE

Dash wants to buy 6 scissors. There are 4 shops that sell the product that he wants. The price of the Scissors and special offers are shown in the table on the next slide.



Shop	Standard Price of Apples	Special Offer
A	\$3	Buy 3 Get 1 Free
B	\$4	Buy 2 Get 1 Free
C	\$5	Flat Rate 30% Off
D	\$6	Buy 1 Get 1 Free

CHEAPEST STORE



Dash wants to buy his Scissors from the same shop and spend as little as possible.

1. Which shop should Dash buy all his pears from?
 - A. Shop A
 - B. Shop B
 - C. Shop C
 - D. Shop D

2. What is the difference in price between the cheapest and most expensive option?
 - A. \$3
 - B. \$9
 - C. \$8
 - D. \$6



EXPLANATION

The problem requires you to find the shop that offers the best discount for the buyers to save money. To find out, let us see the instructions below.

- Compute for the total bill of the shops individually:

◦ Shop A: $3+1\text{pcs} = \$9$; $2\text{pcs}=\$6$; $\$9+\$6=\$15$	TOTAL: \$15
◦ Shop B: $4+2\text{pcs}=\$16$	TOTAL: \$16
◦ Shop C: $6\text{pcs}=\$30$; $30\% \text{ of } \$30=\9 ; $\$30-\$9=\$21$	TOTAL: \$21
◦ Shop D: $3+3\text{pcs}=\$18$;	TOTAL: \$18

- The lowest price offered is from Shop A which has a total of \$15.

A. SHOP A

- To get the answer on number 2, subtract the highest price (\$21) to the lowest price (\$15). You'll get \$6.

D. \$6



**THANK YOU
FOR LISTENING!**

