

GRAYS TUITION CENTRE – Online Tutoring

WEEK: 4

Week Beginning: (11/01/2021)

Subject: MATHS

Year: 6

Lesson Objective:

- Understanding the concept of 2-way tables
- Be able to work out missing values on a 2-way table
- Be able to answer questions by constructing your own 2-way tables

Class Worksheets

- 2-way table higher questions

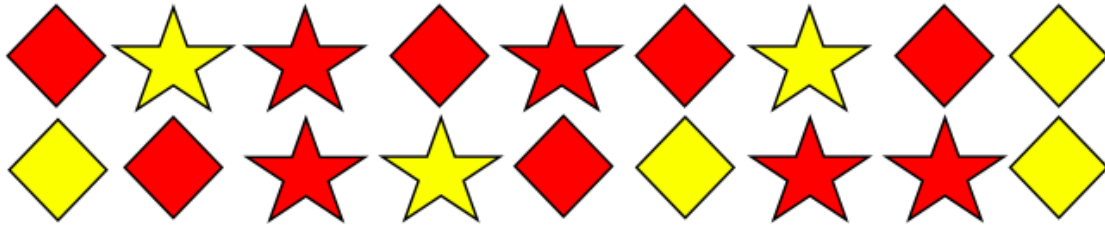
Homework

- Harder questions on 2-way tables

Additional Notes

- All lesson worksheets and **homework for next week (due Week 5)** worksheets can be found below
- Week 3 homework will be marked in lesson

Question 1: Complete the two way table to show the information about the shapes below.



	Rhombus	Star	Total
Red			
Yellow			
Total			

Question 2: 50 children were asked if they wanted to go bowling or to the cinema.

17 girls and 11 boys wanted to go bowling.

12 boys wanted to go to the cinema.

(a) Use this information to complete the two-way table below.

	Bowling	Cinema	Total
Boys			
Girls			
Total			

(b) How many children, in total, want to go to the cinema?

Question 3: Complete the following two way tables:

(a)

	Car	Bus	Walk	Total
Year 9	10	8		24
Year 10		7	5	
Total	16			42

(b)

	English	Art	Total
Pass	25		
Fail		12	13
Total		19	

(c)

	Rugby	Football	Hockey	Total
Class 9A	7		6	24
Class 9B		3		
Total	12			40

(d)

	Child	Adult	Total
Male	52		86
Female		43	
Total			178

Question 4: This two-way table shows information about the students in years 8, 9 and 10.

	Year 8	Year 9	Year 10
Boys	45	38	51
Girls	32	52	28

- Find the total number of students in year 8.
- Find the total number of girls in years 8, 9 and 10.
- What fraction of the students are in year 10?
- What fraction of year 9 students are girls?

Question 5: This two-way table shows the number of goals scored in each match by three football teams throughout January, February and March.

	Rovers	City	United
0 goals	8	3	5
1 goal	3	8	9
2 or more	7	9	4

- Find the number of matches that Rovers played.
- Find the number of matches where 1 goal was scored by these teams.
- In what percentage of their matches did City score no goals?
- Find the fraction of United's matches where they scored 2 or more goals.

Question 1: Paul has a deck of 50 cards, each with a shape on it.
The shapes are either red or black.

	Square	Rectangle	Kite
Red	17	6	1
Black	4	9	13

Paul picks a card at random.

- (a) What is the probability that the card has a black kite on it?
- (b) What is the probability that the card has a red shape on it?
- (c) What is the probability that the card has a square on it?
- (d) What is the probability that the card has a shape with at least 2 lines of symmetry?

Question 2: 60 people visited a swimming pool one evening.
13 out of the 19 people who wore goggles were adults.
There were 15 children.

- (a) Complete a two-way table for this information.
- (b) How many adults did not wear goggles?
- (c) What fraction of the children wore goggles?

Question 3: 100 families booked a holiday in July or in August, at a travel agents.
Some of the families booked to go to France.
Some booked to go to Spain.
The rest of the families booked a holiday to Portugal.

59 families booked to go on holiday in August.
19 of the 35 families going to France booked to go in July.
30 families booked to go to Portugal.
20 families booked to go to Spain in August.

- (a) Create a two-way table for this information.
- (b) How many families booked to go to Portugal in July?

Question 4: There are 120 students in Year 11 at a school.
Each student studies one language, either French, Spanish, German or Welsh.
21 of the 40 students studying Welsh are male.
18 males and 9 females study French.
12 of the 17 students studying Spanish are female.
Twice as many females study German than males.

How many students in Year 11 are female?

Homework Questions

1. The two-way table shows some information about the number of students in a school.

	Year Group			Total
	9	10	11	
Boys			125	407
Girls		123		
Total	303	256		831

Complete the two-way table.

2. A factory makes three sizes of bookcase.
The sizes are small, medium and large.

Each bookcase can be made from pine or oak or yew.

The two-way table shows some information about the number of bookcases the factory makes in one week.

	Small	Medium	Large	Total
Pine	7			23
Oak		16		34
Yew	3	8	2	13
Total	20		14	

Complete the two-way table.

3. The two-way table gives some information about how 100 children travelled to school one day.

	Walk	Car	Other	Total
Boy	15		14	54
Girl		8	16	
Total	37			100

- (a) Complete the two-way table.

(3)

One of the children is picked at random.

- (b) Write down the probability that this child walked to school that day.

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(1)

4. The two-way table gives some information about how 100 children travelled to school one day.

	Walk	Car	Other	Total
Boy	15		14	54
Girl		8	16	
Total	37			100

- (a) Complete the two-way table.

(3)

One of the children is picked at random.

- (b) Write down the probability that this child walked to school that day.

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(1)

7. 80 children went on a school trip.
They went to London or to York.
- 23 boys and 19 girls went to London.
14 boys went to York.

(a) Use this information to complete the two-way table.

	London	York	Total
Boys			
Girls			
Total			

(3)

One of these 80 children is chosen at random.

(b) What is the probability that this child went to London?

6. The two-way table shows some information about the number of boys, girls and teachers at three schools.

	School A	School B	School C	Total
Boys	85	29	54	
Girls		31	47	171
Teachers	13	5		
Total	191			366

Complete the two-way table.

(4 marks)