






Mathematics Grade 7


Statistics

Example 1

The pictogram below shows the number of pizzas ordered by Grade 7 students of St William School over a period of 5 months.

Pizzas ordered over a period of 5 months

Months	Number of Pizzas ordered
February	
March	
April	
May	
June	

Key:  represents 10 pizzas

- (a) How many pizzas were ordered in February?
- (b) How many more pizzas were ordered in March than in April?
- (c) How many pizzas were ordered over the 5 months?

Solution

(a) Number of pizzas ordered in February = $(2 \times 10) = 20$

(b) Number of pizzas ordered in March = $(4 \times 10) = 40$

Number of pizzas ordered in April = $(1 \times 10) + (\frac{1}{2} \times 10) = 15$ **or** $(1.5 \times 10) = 15$

Therefore there were $(40 - 15) = 25$ more pizzas ordered in March than in April.


(c) Total number of keys = $2 + 4 + 1\frac{1}{2} + 1 + 4\frac{1}{2} = 13$

Number of pizzas ordered over the 5 months = $(13 \times 10) = 130$

Example 2

Manisha recorded the number of drinks sold from a drinks machine at the school canteen over 1 week. The information is given in the table below.

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Number of drinks	50	45	30	20	55

- On which day were the most number of drinks sold ?
- How many more drinks were sold on Friday than on Tuesday ?
- Draw a pictogram to illustrate the information given in the above table. Use  to represent 10 drinks.
- Express the number of drinks sold on Monday to that sold on Thursday as a ratio in its simplest form.
- Express the number of drinks sold on Wednesday as a percentage of the total number of drinks sold over the week.

Solution

- The most number of drinks were sold on Friday.
- Number of drinks sold on Friday = 55
Number of drinks sold on Tuesday = 45
Therefore there were $(55 - 45) = 10$ more drinks sold on Friday than in Tuesday.


- Number of drinks sold from a drinks machine over a week**

Day	Number of drinks sold over 1 week
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Caution:

When you need to use only part of the key for e.g. half of the key, ensure that you divide the key in such a way that you obtain two equal parts. Explain why these keys are not appropriate:

Top half 







Bottom half 

- Ratio = $50 : 20 = 5 : 2$
- Total number of drinks sold = $50 + 45 + 30 + 20 + 55 = 200$
Percentage = $\frac{30}{200} \times 100\% = 15\%$

Exercise: Workout all question

1. The following pictogram shows the number of handbags sold at a shop over the last six months.

Number of handbags sold at a shop over the last six months






Months	Number of handbags sold
January	
February	
March	
April	
May	
June	


Key:  represents 10 handbags

- (a) During which month was the highest number of handbags sold?
- (b) During which two months were the same number of handbags sold?
- (c) During which month were 55 handbags sold?
- (d) How many more handbags were sold in March than in May?
- (e) Express the number of handbags sold in June to the number sold in February as a ratio in its simplest form
- (f) Express the number of handbags sold in the months of March and June as a percentage of the total number of handbags sold over the last six months.


3. Liberty Ltd exports flowers. The following pictogram shows the number of flowers shipped during 6 weeks.

Number of flowers shipped during 6 weeks






Weeks	Number of flowers
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	

- Given that the number of flowers shipped in Week 1 was 5 500, find the value represented by the key .
- Find the number of flowers shipped in Week 3.
- If the number of flowers shipped in Week 6 is twice the number of flowers shipped in Week 3, complete the pictogram for Week 6.
- How many flowers were shipped altogether during the 6 weeks?

4. Eric cultivates dragon fruits for the local market. The following pictogram shows the number of dragon fruits that he harvested from 2012 to 2016.

Each  represents 2 000 dragon fruits.

Number of dragon fruits harvested from 2012 to 2016

Months	Number of dragon fruits harvested
2012	
2013	
2014	
2015	
2016	

- How many dragon fruits were harvested in 2014?
- How many dragon fruits were harvested from 2012 to 2016 inclusive?
- What percentage of the total number of dragon fruits was harvested in 2013?