

CHAPTER 6

Interpret Information

Understanding a Table

Take your time and try to understand what the table below is telling you.

Example :-

This local cinema film times are shown in the advert.

| | 5 pm | 7 pm | 9 pm |
|-----------------|---------|----------|----------|
| Studio 1 | Spiders | Thomsons | U-Turn |
| Studio 2 | Spiders | U-Turn | Thomsons |
| Studio 3 | U-Turn | Spiders | Thomsons |

a Write what film is showing in :-

- (i) **Studio 1** at 5 pm
- (ii) **Studio 3** at 9 pm
- (iii) **Studio 2** at 7 pm.

b List where and at what times I could see the movie **U-Turn**.



SPIDERS !

Answers :-

a (i) Look along Studio 1 until you come to 5 pm **Spiders**

(ii) Look along Studio 3 until you come to 9 pm **Thomsons**

(iii) Look along Studio 2 until you come to 7 pm **U-Turn**

b U-Turn appears in :- **Studio 1 at 9 pm Studio 2 at 7 pm Studio 3 at 5 pm**

Exercise 6.1



1. Theatre ticket prices are shown in the table.

a How much would it cost for :-

- (i) one adult circle ticket on **Monday** ?
- (ii) one child stalls ticket on **Saturday** ?
- (iii) **Two** adult upper circle tickets on **Wednesday** ?

| | Mon - Thu | | Fri - Sun | |
|---------------------|-----------|-------|-----------|-------|
| | Adult | Child | Adult | Child |
| Stalls | £8 | £5 | £10 | £6 |
| Circle | £7 | £3 | £8 | £4 |
| Upper Circle | £6 | £2 | £7 | £3 |

b Mr Dell **and** his son went to the theatre. It cost him £12.

Name **which days** he could have gone and **where they sat** in the theatre.

2. Sidney, the paper boy, delivers two different **newspapers** over a weekend.

The table shows the number of newspapers he delivered.

| | Sat | Sun | Mon |
|---------------|-----|-----|-----|
| Planet | 15 | 17 | 22 |
| Force | 18 | 24 | 24 |

- a How many **Planet** newspapers did Sidney deliver on :-
 (i) Saturday (ii) Sunday (iii) Monday ?
- b How many **Force** newspapers did he deliver each day ?
- c How many newspapers did Sidney deliver on Saturday ?
- d How many newspapers did Sidney deliver altogether :-
 (i) on Sunday (ii) on Monday (iii) over the 3 days ?



3. The school sports day has a timetable as shown.

- a What time does the **Javelin** competition start ?
- b Where does the **Gymnastics** competition take place ?
- c Boyd is at the **Track** at 2 pm. What is he watching ?
- d At what time and where will the **200 m** race take place ?

| Starting Times | Competition | Where it takes place |
|----------------|-------------|----------------------|
| 2 pm | 100 m race | Track |
| 2.30 pm | 200 m race | Track |
| 3 pm | Javelin | Rugby Pitch |
| 3.30 pm | Gymnastics | Boy's Gym |



4. Weedkiller comes in three sizes and three different strengths.

The table shows the cost of a box of different sizes and strengths.

- a How much would it cost for each of these boxes :-
 (i) Small Weak
 (ii) Medium Mild
 (iii) Large Mild
 (iv) Large Strong ?

| | Small | Medium | Large |
|---------------|-------|--------|-------|
| Weak | £2.80 | £3.50 | £4 |
| Mild | £3 | £3.80 | £4.35 |
| Strong | £3.75 | £4.20 | £5.15 |

- b I paid £4.20 for a box of weedkiller in the superstore. What kind did I buy ?



5. The table shows the prices of holidays.

| | 1 week | 2 weeks | 3 weeks | 4 weeks |
|------------------|--------|---------|---------|---------|
| Minorca | £200 | £250 | £300 | £350 |
| Lanzarote | £280 | £340 | £400 | £440 |
| Kos | £300 | £350 | £420 | £450 |

a How much would it cost to go to :-

(i) **Minorca** for 2 weeks

(ii) **Kos** for 3 weeks

(iii) **Lanzarote** for 4 weeks ?

b Tina spent £340 on her holiday.

Where did Tina go and **for how long** ?

c Bob **and** Louise went to Minorca for 2 weeks.

What was the total cost ?



6. Mr Charles is looking at the holiday table shown opposite.

| | 1 week | 2 weeks | 3 weeks | 4 weeks |
|--------------------|--------|---------|---------|---------|
| Royal Hotel | £210 | £297 | £327 | £346 |
| Sea Hotel | £228 | £313 | £334 | £354 |
| View Hotel | £251 | £300 | £348 | £398 |

a How much would it cost Mr Charles to stay at the :-

(i) Royal Hotel for one week

(ii) Sea Hotel for two weeks

(iii) View Hotel for four weeks

(iv) Royal Hotel for four weeks ?

b Mr Charles paid £334 for his holiday.

Where did he stay and **for how long** ?

c The table prices shown are for each person.

How much would it cost altogether for Mr **and** Mrs Price to stay at the :-

(i) Royal Hotel for one week ?

(ii) View Hotel for two weeks ?



7. This holiday table shows the prices for each adult and each child.

How much would it cost for each of the following holidays :-

| | One week | | Two weeks | |
|-----------------|----------|-------|-----------|-------|
| | Adult | Child | Adult | Child |
| Benidorm | £150 | £80 | £190 | £100 |
| Ibiza | £180 | £70 | £200 | £90 |
| Crete | £230 | £100 | £280 | £130 |

a Benidorm, 1 adult for 1 week

b Crete, 1 adult for 2 weeks

c Ibiza, 2 adults for 1 week

d Crete, 1 adult and 1 child for 2 weeks

e Mr Bain, his wife and 3 children for two weeks in Ibiza ?

8. This table shows the temperatures recorded around Scotland one day in October. The temperatures are shown in degrees Celsius($^{\circ}\text{C}$).

| Place Name | Maximum Temperature | Minimum Temperature |
|------------|-----------------------|-----------------------|
| Perth | 17 $^{\circ}\text{C}$ | 6 $^{\circ}\text{C}$ |
| Kilmarnock | 19 $^{\circ}\text{C}$ | 11 $^{\circ}\text{C}$ |
| Paisley | 18 $^{\circ}\text{C}$ | 13 $^{\circ}\text{C}$ |
| Inverness | 20 $^{\circ}\text{C}$ | 7 $^{\circ}\text{C}$ |
| Dumfries | 16 $^{\circ}\text{C}$ | 9 $^{\circ}\text{C}$ |



- What was the maximum temperature in Kilmarnock ?
 - What is the name of the town with the lowest temperature and what was that temperature ?
 - What was the minimum temperature in Inverness ?
 - What is the name of the town with the highest temperature and what was that temperature ?
 - What is the difference in the maximum and minimum temperatures in Dumfries ?
9. Abbot Guest House in Arran advertises the following tariffs on its website :-

| No. of Nights | Adult Price per Person | Price per Child up to age 15 |
|---------------|------------------------|------------------------------|
| 1 night | £45 | £22 |
| 2 nights | £82 | £40 |
| 5 nights | £200 | £80 |



- How much did it cost Mr Montgomerie for a one night stay ?
- Mr & Mrs Murphy spent 5 nights in the guest house. What was their total bill ?
- Mr & Mrs Wright and son Taylor, aged 8, stayed for 2 nights. What was their total bill ?
- Mrs May and her 3 daughters, aged 16, 18 and 20 stayed for 1 night. What did Mrs May pay for all four of them ?
- John and Ina paid £480 for a 5 night stay. Did they have any of their children with them ?



10. Shown are the prices for 2 different airlines flying first-class from London to Dublin.

| | April | May | June | July |
|------------|-------|------|------|------|
| Aer Fungus | £90 | £155 | £182 | £200 |
| Fly-Ire | £100 | £150 | £190 | £204 |

- a How much will it cost to travel to Dublin with Fly-Ire in June ?
- b How much will it cost to fly to Dublin in April with Aer Fungus ?
- c If you want the cheaper flight in May - which airline should you choose ?
- d Bill Tennant travelled to Dublin from London for £204.
 - (i) Which airline did he fly with ?
 - (ii) In which month did he travel ?



11. Here is a calendar for the month of October.

| Sun | Mon | Tues | Wed | Thur | Fri | Sat |
|-----|-----|------|-----|------|-----|-----|
| | | | | | 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 | | | | | | |

- a On what day of the week is October 21st ?
- b (i) What is the date 7 days after October 13th ?
(ii) What day is it ?
- c (i) What is the date 5 days before October 24th ?
(ii) What day is it ?
- d It is October the 9th. My anniversary is in two weeks time.
On what day and what date is my anniversary ?
- e It is October the 26th. Three weeks ago I bought a puppy.
On what date was that ?
- f On what day of the week was September 30th ?
- g On what day of the week is Halloween ?
- h On what day is November 5th, Bonfire Night ?



12. Using Billy's timetable below, answer these questions :-

- a How many periods in a week are given to Maths ?
- b On which days of the week will Billy need his PE kit ?
- c Billy has a doctor's appointment after period 3 on Monday and does not return to school.

| Period | 1 | 2 | 3 | 4 | 5 |
|------------------|---------|---------|---------|---------|---------|
| Monday | Maths | French | P.E. | History | Art |
| Tuesday | English | Maths | Geog | R. E. | French |
| Wednesday | Music | English | History | Maths | Maths |
| Thursday | Geog | French | English | P.E. | P.E. |
| Friday | H.E. | French | Music | Maths | English |

Which 2 subjects will he miss ?

- d Which subject does Billy get last thing in the week ?
- e There is 1 day in the week when Billy doesn't get maths. Which day ?



13. Look out your **own** timetable.

- a What do you get Period 1 on a Friday ?
- b How many periods of English do you get in a week ?
- c On which day(s) do you get PE ?
- d Which subject do you like the most ?
On which day(s) do you get this ?
- e Look at Wednesday. What do you get straight after lunch ?
- f Find out when your next period of maths is.



14. This table shows the TV programmes which are on Sundays between 5 pm and midnight.

- a Which programme starts at 6.45 pm ?
- b How many programmes last half an hour ?
- c How long does the Sunday film last ?
- d How many programmes last **more** than an hour ?
- e Compare the News with the Waterloo High programme. Which is longer and by how much ?

| Programme | Start Time | Length |
|----------------------|----------------|--------------------------|
| Weekend Soccer | 5 pm | 1 hour |
| News | 6 pm | 15 minutes |
| Songs with Praise | 6.15 pm | 30 minutes |
| Ommerdale | 6.45 pm | 30 minutes |
| Cortonvale St. | 7.15 pm | 30 minutes |
| Waterloo High | 7.45 | 1 hour 15 minutes |
| Sunday Film | 9 pm | 2 hours |
| Newsnight | 11 pm | 45 minutes |
| Late News | 11.45 pm | 15 minutes |



15. You have to plan a school sports-fest.

It has to start at 1.30 pm and finish at 4 pm.

A break for refreshments should last for 20 minutes.

You must allow 10 minutes for tidying away the apparatus.

There are 5 different activities on the go :-

- Basketball 20 minutes
- Netball 15 minutes
- Gymnastics 20 minutes
- Football 30 minutes
- Volleyball 25 minutes



| Activity | Start Time | Length |
|----------|-------------|--------|
| | | |
| | | |
| | COPY | |
| | | |
| | | |
| | | |
| | | |

Copy and complete the grid to show your plan for the event.

16. Mr Smith is having a late Xmas lunch - but all that's left in the cafe is shown on the menu board :-

Mr Smith usually has a starter and a main dish.

He could choose, for example :-

- **Soup & Chicken**
- or • **Soup & Omlette**
- or • **Garlic Bread & Omlette.**

Copy the table below and write down the **FIVE** other choices he could have.

| STARTER | MAIN COURSE |
|--------------|-------------|
| Soup | Chicken |
| Soup | Omlette |
| Garlic Bread | Omlette |
| | |
| COPY | |
| | |
| | |
| | |



Starters

Soup
~~Prawn Cocktail~~
 Garlic Bread
~~Pate~~

Main Dishes

Chicken
 Beef Curry
~~Haddock~~
 Omlette
 Lasagne
~~Veggie Pie~~



The Pictograph

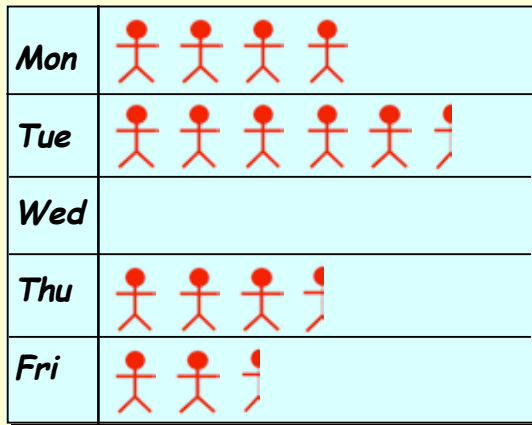
As its name suggests, a **pictograph** is a graph which uses pictures to display information. Each picture used in the graph has a **value**. This value is given in a **key**.

Example :-

The **pictograph** below shows the number of primary 7 pupils who go to the library at lunchtime.

Key:  stands for 2 pupils.

The **key** shows that each figure represents 2 pupils.



On Monday **8** pupils attended.

(Can you see that the answer is **NOT 4** ?)

On Tuesday **11** pupils attended.

(Can you see why the answer is **11** ?)

Exercise 6-2



1. Look at the **pictograph** above.

a How many pupils attended on :-

(i) Thursday (ii) Friday ?

b How many pupils attended altogether ?

c The library closed one lunchtime. On which day was that ? Explain !

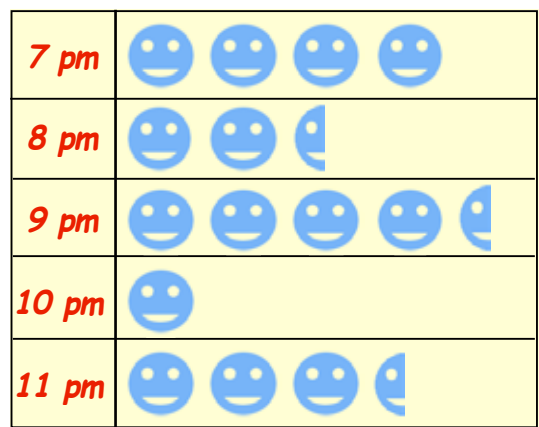


2. This pictograph shows the number of people waiting at a subway station one evening.

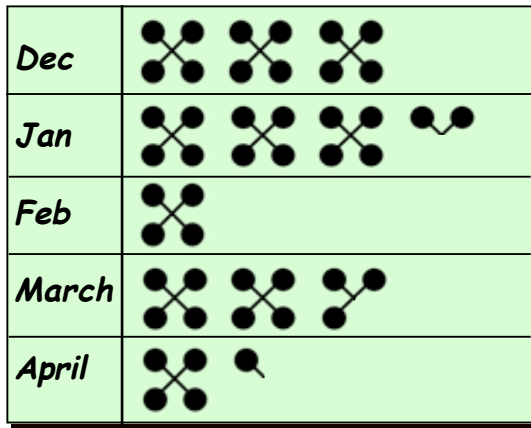
Key:  stands for 2 people.

Write down the number of people waiting at :-

- a 7 pm b 8 pm
c 9 pm d 10 pm
e 11 pm.



3. This pictograph shows the number of goals scored by an ice hockey team in the last five months of the season.



Key: stands for 4 goals.

- Write down how many goals were scored **each month**.
- What was the team's **best** month ?
- How many goals did the team score altogether from **December to April** ?

4. The hair colour of ladies was recorded on Monday in "The Pink Salon".

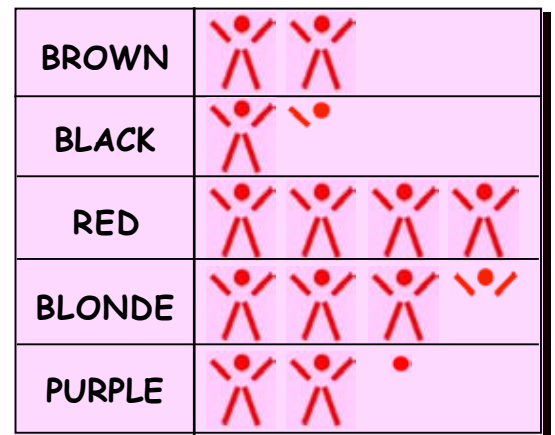
- Look at the key.

How many ladies does stand for ?

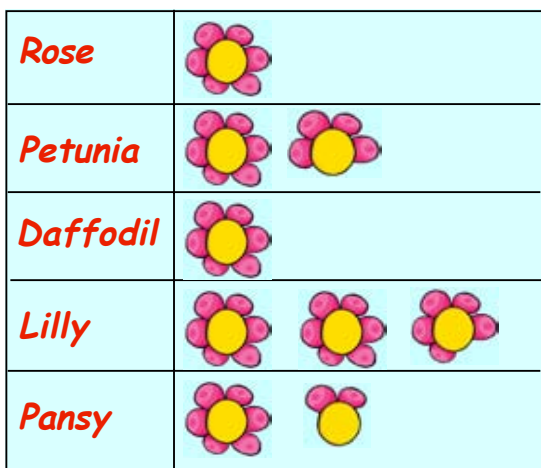


- Write down how many ladies had red hair.
- How many blonde ladies were there ?
- How many got their hair done on Monday ?

Key: stands for 5 ladies.



5. The pictograph shows the result of the survey :- into "What kind of flowers do you like ?"



Key: stands for 7 people

- What kind of flower was **most** popular ?
- Write down the number of people who liked :-
(i) Roses (ii) Petunia (iii) Lillies.
- How many **more** people preferred pansies to daffodils ?
- How many people took part in the survey ?

6. Pupils of Stonewell Academy planted young sapling trees in the school grounds over a period of 5 weeks.



The list below shows how many trees were planted each week.

| | | |
|------------------|------------------|------------------|
| Week 1 - 4 trees | Week 2 - 6 trees | Week 3 - 9 trees |
| Week 4 - 3 trees | Week 5 - 5 trees | |

Use **Key:**  stands for 2 trees to draw a **pictograph** for this.

7. The prefects of John Road High have opened a school tuck shop.

YOU have to draw a pictograph to show the number of pupils who used the shop during its first week.




| | | |
|--------------------|-------------------|---------------------|
| MONDAY 8 pupils | TUESDAY 20 pupils | WEDNESDAY 12 pupils |
| THURSDAY 10 pupils | FRIDAY 6 pupils | |

Use **Key:**  stands for 4 pupils to draw a **pictograph** for this.

8. Miss Stevenson, the school nurse, arranged for S1 pupils to have a dental check.

YOU have to draw a pictograph to show the number of S1 pupils who were due to see Miss Stevenson that day.

| | | |
|-----------------------|----------------------|---------------------|
| 9 - 10 am 25 pupils | 10 - 11 am 15 pupils | 11 - noon 23 pupils |
| noon - 1 pm 16 pupils | 1 - 2 pm 8 pupils | |

Use **Key:**  stands for 5 pupils to draw a **pictograph** for this.



The Bar Graph

Bar Graphs are like Pictographs, but use bars instead of pictures.

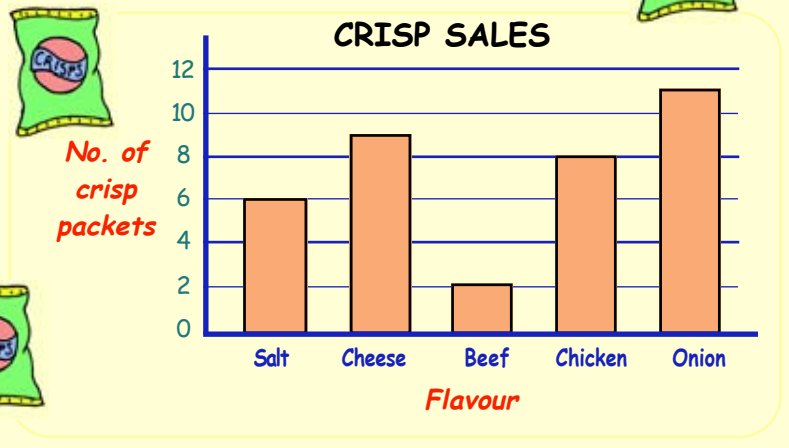


Example :-

Packets of crisps were sold at the corner shop one day.

The bar graph shows what flavours were sold.

Can you see that **2** packets of **beef** crisps were sold ?



Exercise 6.3



1. Look at the Bar Graph above.

a Write down the number of packets of :-

(i) Salt sold (ii) Cheese sold (iii) Chicken sold (iv) Onion sold.

b How many more packets of Onion were sold than Beef ?

c How many packets of crisps were sold **in total** that day ?

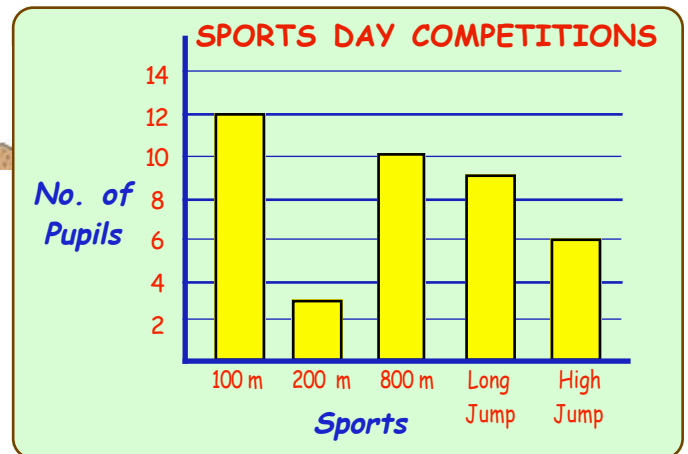


2. The bar graph shows the number of pupils taking part in sports day competitions.

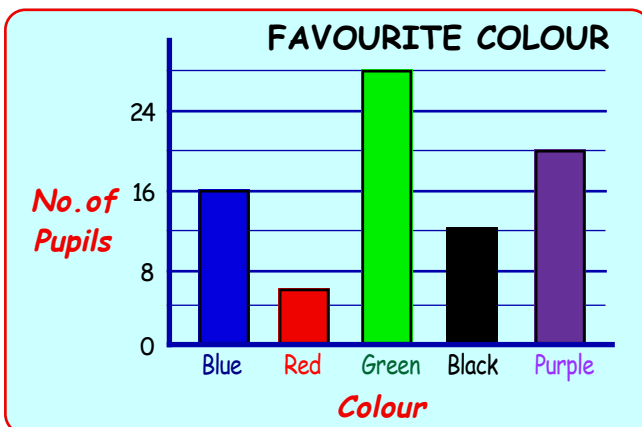


a Write down the number of pupils who took part in **each** type of sport.

b How many pupils **in total** took part in the sports day ?



3.



Pupils were asked to name their **favourite colour**.

The bar graph shows the results.

a Write down how many pupils chose **each** colour.

b How many pupils were asked **in total** ?

4. Children at a market were asked to name their **favourite fruit**.

The results are shown in the bar graph below.

a How many children chose :-

(i) apple

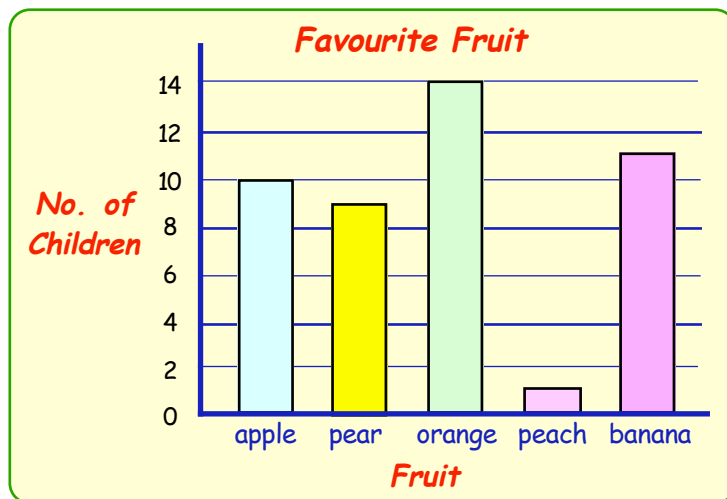
(ii) orange

(iii) banana ?



b How many **more** children preferred pear to peach ?

c How many children took part in this survey ?



5. This bar graph shows the number of **pets** owned by 53 pupils.

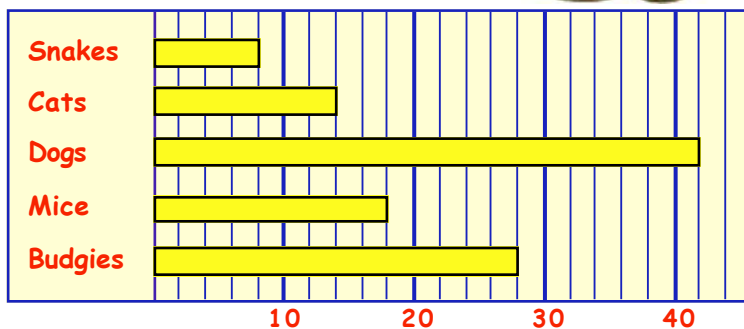
a How many pupils owned a **snake** ?

(Answer is **not 4**)

b Write down how many pets of **each type** were owned by the pupils.

c How many **less** snakes were there than dogs ?

d How many pets were there altogether ?



6. A few Primary pupils were asked to name their favourite vegetable.



| cabbage | turnip | lettuce | beetroot | peppers |
|---------|--------|---------|----------|---------|
| 6 | 8 | 3 | 7 | 1 |



Draw and label a neat **bar graph** to show this information.

7. Some children were asked to name their favourite sport.

| hockey | football | tennis | swimming | netball |
|--------|----------|--------|----------|---------|
| 20 | 28 | 18 | 22 | 2 |



Draw and label a neat **bar graph** to show this information.

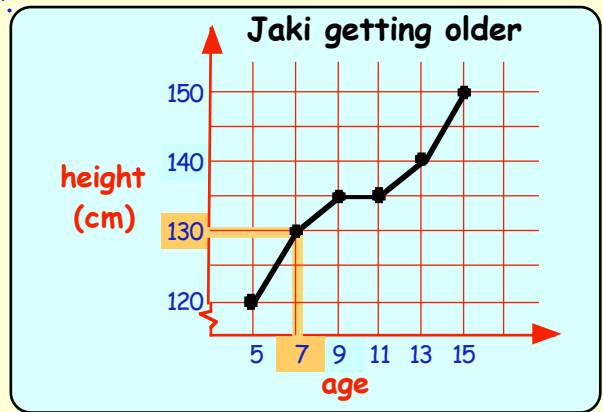
The Line Graph

Line Graphs can be used to show how values change over periods of time.
For example - a girl's height as she gets older.

Example :-

This line graph shows Jaki's height from the age of 5 up to 15.

The orange shaded line shows that when Jaki was **7** years old she was **130 cm** tall.



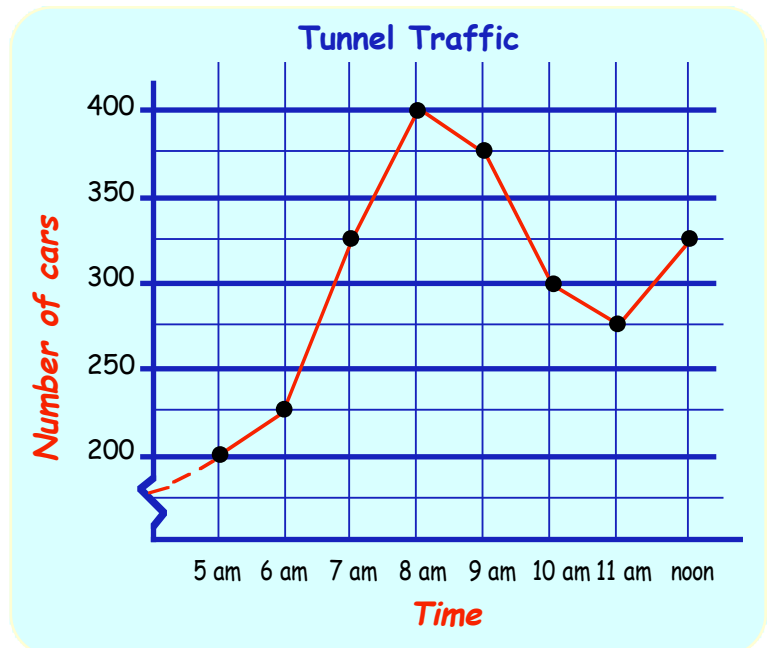
8. Use the **line graph** above to answer the following :-

- How tall was Jaki at the age of (i) 5 (ii) 11 (iii) 15 ?
- How old was Jaki when she was 140 cm tall ?
- How old was Jaki when she was 135 cm tall ?
- Estimate the height of Jaki at 14 years of age.

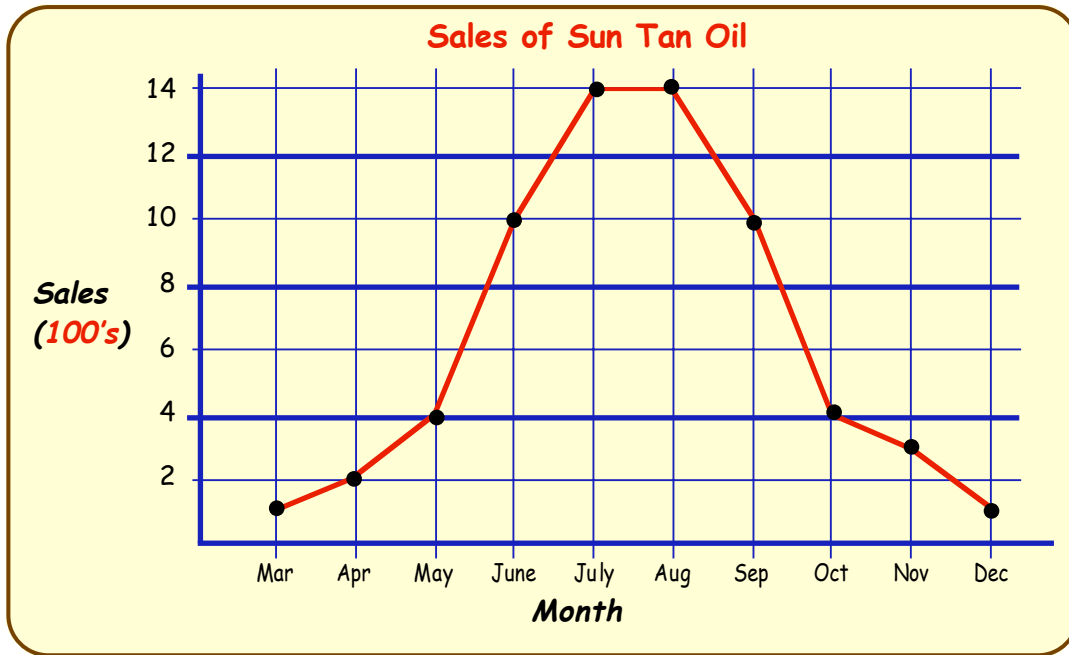


9. The **line graph** shows the number of cars per hour that were passing through the Clyde Tunnel one Friday morning.

- How many cars were passing through the tunnel at :-
(i) 5 am (ii) 7 am
(iii) 9 am (iv) 11 am
(v) noon (vi) 10.30 am ?
- At what time were there 225 cars per hour going through the tunnel ?
- At what times (approx) were there 325 cars per hour going through the tunnel ?
- Between which two times was the biggest **increase** in traffic ?
- Between which two times was the biggest **decrease** in traffic ?
- Why do you think the traffic was busiest around 8 am - 9 am ?



10. The **line graph** shows the sales of bottles of sun tan oil (in 100's) by *Roots the Chemist* from March to December 2007.



- How many bottles of sun tan oil did Roots sell in April ? (in 100's)
 - How many bottles of sun tan oil did Roots sell in :-
 - March
 - July
 - December ?
 - By how much did the sales **fall** between August and September ?
 - Between which two months did sales :-
 - rise** the most ?
 - fall** the most ?
 - How many bottles of sun tan oil did Roots sell altogether from **May** to **August** ?
 - Why are sales so high in July and August ?
 - Why do you think the sales go up and down in this way ?
11. A school recorded the number of absences in Secondary 5 in the week leading up to the summer holidays. The table below shows these absences.
Draw and label a neat **line graph** to display this data.

| Day | Mon | Tue | Wed | Thu | Fri |
|------------|-----|-----|-----|-----|-----|
| No. Absent | 10 | 30 | 15 | 45 | 25 |





Now I can



1. A restaurant owner decides to introduce a "theme night" idea into his menus.

The cost for each buffet meal is shown.

| | Mon - Fri | | Sat & Sun | |
|----------|-----------|-------|-----------|-------|
| | Adult | Child | Adult | Child |
| Chinese | £18 | £8 | £20 | £10 |
| Indian | £19 | £6 | £22 | £12 |
| European | £21 | £10 | £25 | £13 |

a How much will it cost for :-

- (i) one adult on a Tuesday Chinese Theme night ?
- (ii) one adult on a Saturday Indian Theme night ?
- (iii) **Two** adults on a Sunday European Theme night ?
- (iv) One adult **and** one child on a Friday Indian Theme night ?

b Mr and Mrs Paton take their two children to a Sunday Chinese Theme night.

Work out the total cost for the family.

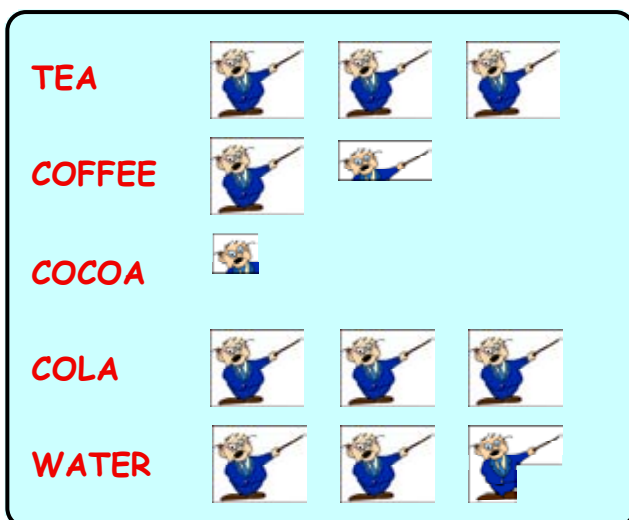
c How much would they have saved if they had gone on **Monday** instead ?



2. The pictograph shows the result of the survey into :-
"What does my teacher drink in the staffroom ?"



= 4 teachers



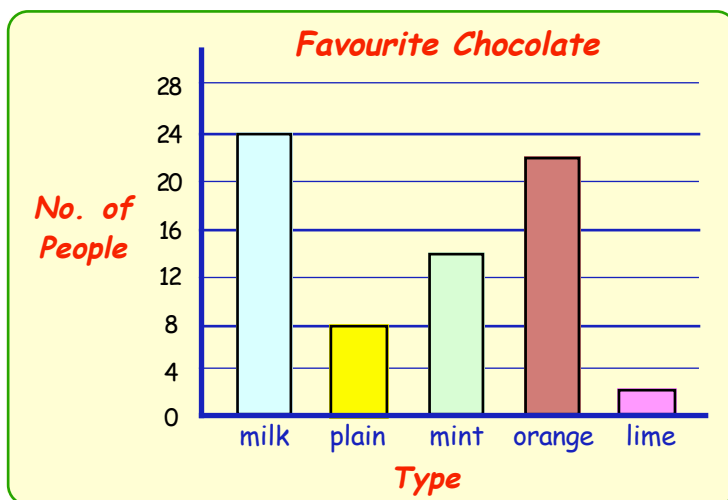
- a How many teachers drink tea ?
- b How many teachers drink coffee ?
- c How many teachers drink cocoa ?
- d How many teachers drink water ?
- e How many **more** teachers prefer cola to water ?
- f How many **less** teachers drink cocoa compared to tea ?
- g How many teachers took part in the survey ?



3. The **bar graph** shows the results of a survey taken outside Tomlinson's Chocolate Shop. Some people were asked what was their favourite type of chocolate.

a How many people chose :-

- (i) milk
- (ii) plain
- (iii) mint
- (iv) lime ?

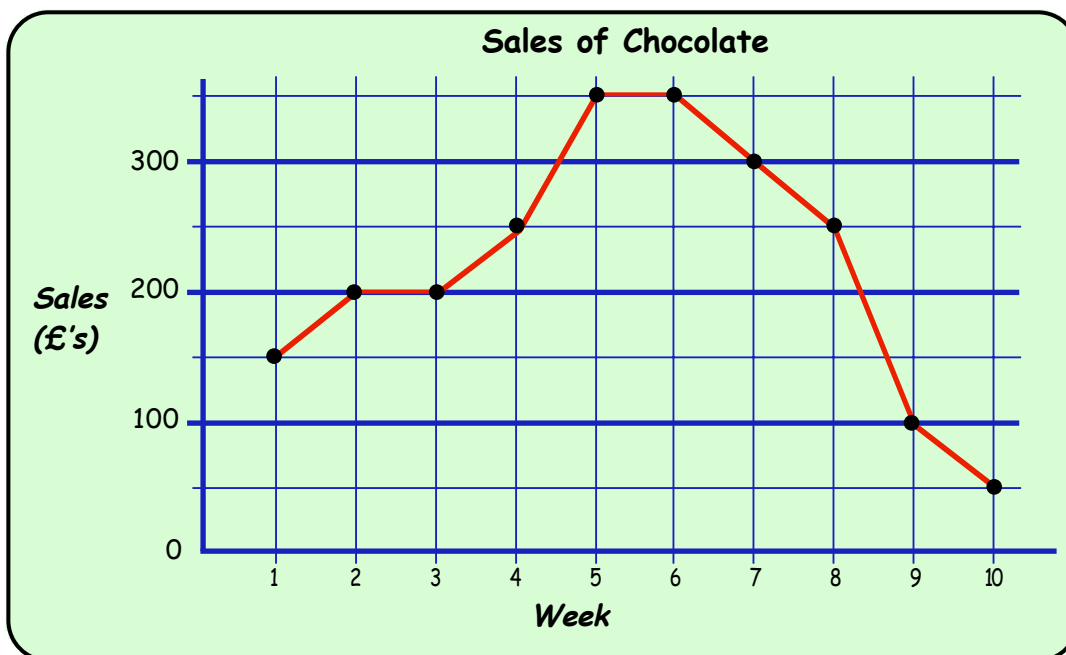


b How many **more** people preferred milk to orange ?

c How many **more** people preferred mint to lime ?

d What was the **total** number of people asked ?

4. Tomlinson's Chocolate Shop kept a record of their chocolate sales over a ten week period. This **line graph** shows their figures.



a During which two weeks were the sales highest ?

b In which week were sales lowest ?

c What were the sales (in £'s) in :- (i) week 4 (ii) week 8 ?

d Between which two weeks did sales **drop** the fastest ?

e Between which two weeks did sales remain the **same** ?

