UNIT 11 *Data Collection and Presentation*

Revision Test 11.1
(Standard)

1.   Four children's names are given below. You are going to calculate how often each letter is used in these names.
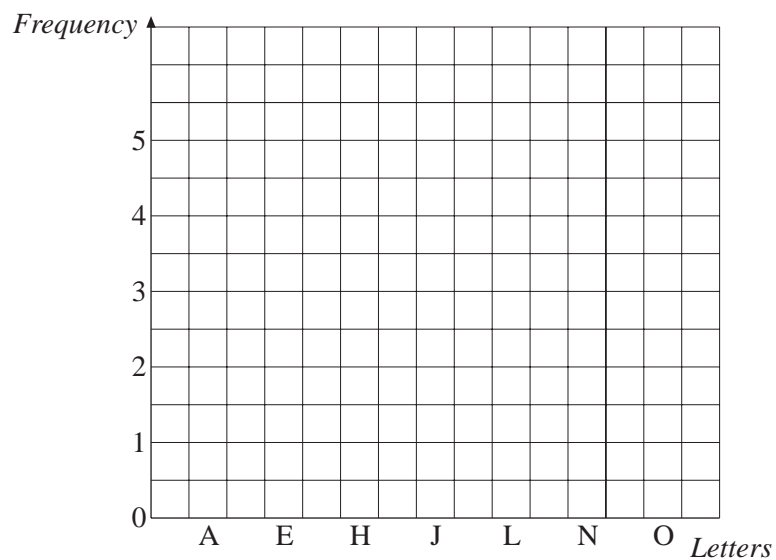
<div align="center">

JANE   JOHN   ALAN   LEANNE

</div>

(a)   Copy and complete the tally chart:

Letter	Tally	Frequency
A		
E		
H		
J		
L		
N		
O		

(6 marks)

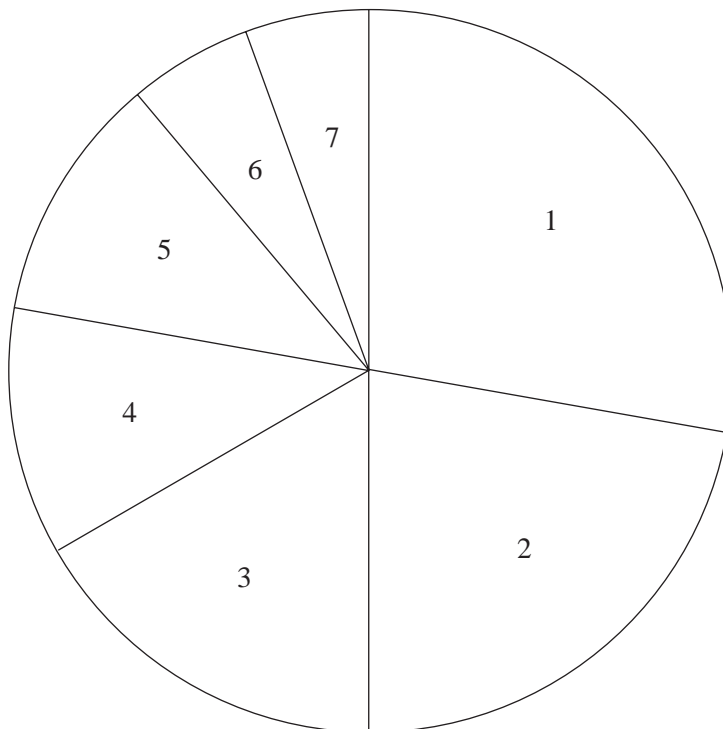(b)   Copy and complete this bar chart:

(5 marks)

Revision Test 11.1

(c)   Copy and complete this pictogram:

```
A │  A   A   A   A
  │
E │
  │
H │
  │
J │
  │
L │
  │
N │  N   N   N   N   N
  │
O │
```

(5 marks)

(d)   On this pie chart, which section should be used for which letter?

(5 marks)

(e)   Which two letters are the most common in these names?

(2 marks)

Revision Test 11.1

2.   Use this data base to answer the questions below:

Name	Age in Years	Colour of Eyes	Height	Number of Children
Fred	52	Blue	186 cm	5
Graham	42	Green	174 cm	3
Mary	38	Blue	168 cm	0
James	42	Blue	178 cm	2
Wendy	32	Brown	169 cm	3
Jenny	28	Brown	172 cm	2

(a)   Which two columns contain *qualitative* data?   *(2 marks)*

(b)   Who is the *tallest* person with *3* children?   *(1 mark)*

(c)   Who is the *oldest* person?   *(1 mark)*

(d)   Who is the *youngest* person with *blue* eyes?   *(1 mark)*

(e)   Who is the *oldest* person with *2* children?   *(1 mark)*

(f)   Who is the *tallest* person with *brown* eyes?   *(1 mark)*

UNIT 11 *Data Collection and Presentation*

Revision Test 11.2
(Academic)

1. The children in a class were each asked to choose their favourite colour. Their choices are listed below:

Red	Green	Blue	Green	Red	Black
Yellow	Yellow	Green	Red	Blue	Yellow
Green	Red	Red	Blue	Blue	Purple
Blue	Black	Red	Purple	Blue	Red
Red	Red	Yellow	Yellow	Red	Purple

(a) Copy and complete this tally chart:

Colour	Tally	Frequency
Red		
Yellow		

(5 marks)

(b) Draw a bar chart for these data.

(5 marks)

(c) Calculate the angle for each colour in a pie chart.

(5 marks)

(d) Draw a pie chart for these data.

(4 marks)

(e) State which colour is the *most* popular and which is the *least* popular.

(2 marks)

Revision Test 11.2

2.   Use this data base to answer the questions below:

Name	Age in Years	Colour of Eyes	Height	Number of Children
Fred	52	Blue	186 cm	5
Graham	42	Green	174 cm	3
Mary	38	Blue	168 cm	0
James	42	Blue	178 cm	2
Wendy	32	Brown	169 cm	3
Jenny	28	Brown	172 cm	2

(a)   Which column contains *discrete quantitative* data?   *(1 mark)*

(b)   Which two columns contain *continuous quantitative* data?   *(2 marks)*

(c)   Who has *blue* eyes and *2* children?   *(1 mark)*

(d)   How old is the *tallest* person who has *blue* eyes?   *(1 mark)*

(e)   What colour are the eyes of the *tallest* person with *3* children?   *(1 mark)*

(f)   Who has the *same* colour eyes as Mary and has *fewer* children
       than Graham?   *(1 mark)*

(g)   Which 2 people are *shorter* than James, but have *more* children than he has?
                                                                          (2 marks)

UNIT 11 *Data Collection and Presentation*

Revision Test 11.3
(Express)

1. (a) Draw a bar chart to show how often each of the letters in these words is used:

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   (7 marks)

   (b) Which letter occurs *most often*?

   Which letter occurs only *once*?

   (3 marks)

2. A survey into favourite foods gave the results in this table:

Food	Frequency
Chips	18
Salad	1
Burgers	24
Hot Dogs	7

   (a) Calculate the angles that would be needed in a pie chart for each type of food.

   (5 marks)

   (b) Draw a pie chart for these data.

   (4 marks)

3. Use this data base to answer the questions below:

Name	Age in Years	Colour of Eyes	Height	Number of Children
Fred	52	Blue	186 cm	5
Graham	42	Green	174 cm	3
Mary	38	Blue	168 cm	0
James	42	Blue	178 cm	2
Wendy	32	Brown	169 cm	3
Jenny	28	Brown	172 cm	2

   (a) State which type of data is in each column.

   (5 marks)

   (b) Who has the *same* colour eyes as Mary and has *fewer* children than Graham?

   (1 mark)

   (c) Which 2 people are *shorter* than James, but have *more* children than he has?

   (2 marks)

   (d) Draw a pictogram to illustrate the number of children each person has.

   (3 marks)

Revision Test 11.1 (Standard)   Answers

1. (a)

Letter	Tally	Frequency
A	I I I I	4
E	I I I	3
H	I	1
J	I I	2
L	I I	2
N	⧺⧺	5
O	I	1

Correct tally chart   B3
(using I I I I I for N: B2)

Correct frequencies   B3
(–1 for each mistake)

(b)   *Frequency*
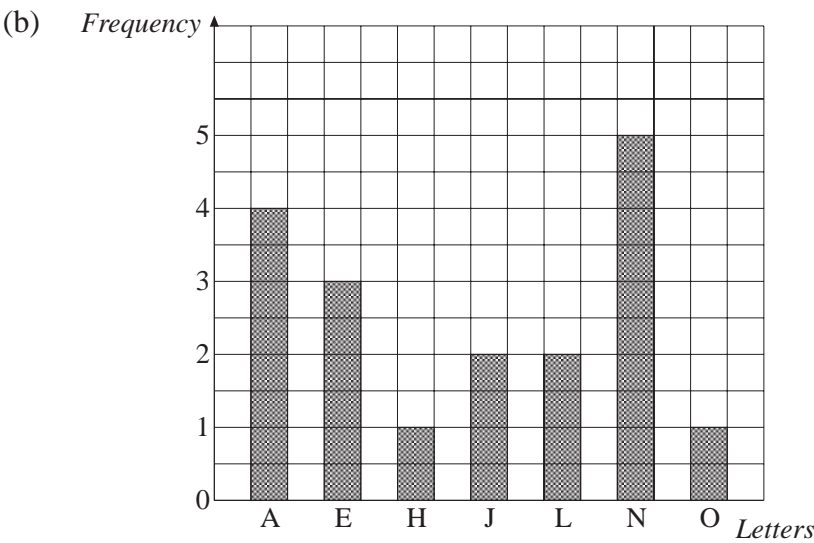
All correct   B5
(–1 for each mistake)

(c)

```
A │ A  A  A  A
E │ E  E  E
H │ H
J │ J  J
L │ L  L
N │ N  N  N  N  N
O │ O
```

All correct   B5   *(16 marks)*
(–1 for each mistake)

Revision Test 11.1 (Standard)   Answers

   (d)   1: N; 2: A; 3: E; 4: J or L;
         5: L or J; 6: H or O; 7: O or H   B1 B1 B1 B1 B1   *(5 marks)*

   (e)   N and A   B1 B1   *(2 marks)*

2.   (a)   Name and Colour of Eyes   B1 B1

   (b)   Graham   B1

   (c)   Fred   B1

   (d)   Mary   B1

   (e)   James   B1

   (f)   Jenny   B1   *(7 marks)*

(TOTAL MARKS 30)

Revision Test 11.2 (Academic) Answers

1. (a)

Colour	Tally	Frequency
Red	⊬⊬⊬ ⊬⊬⊬	10
Yellow	⊬⊬⊬	5
Green	||||	4
Blue	⊬⊬⊬ |	6
Black	||	2
Purple	|||	3

Correct tally chart   B3
(–1 for not using using ⊬⊬⊬)

Correct frequencies   B2
(–1 for each mistake)   *(5 marks)*

(b)
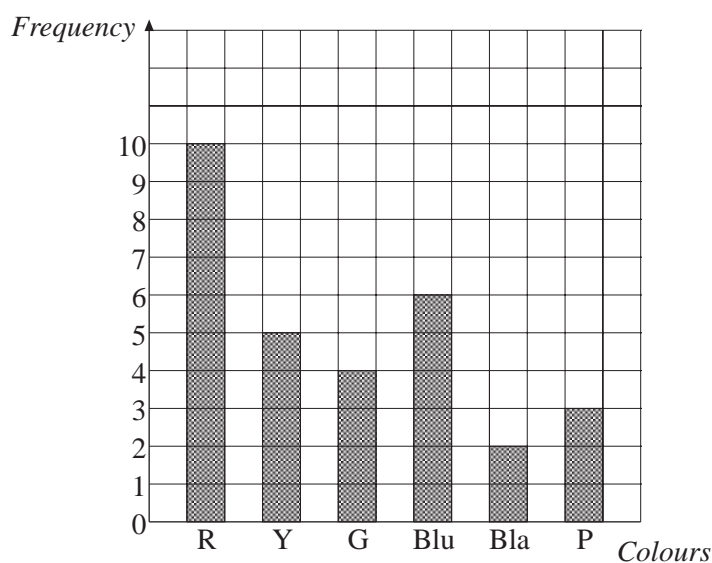
All correct   B5   *(5 marks)*
(–1 for each mistake)

(c) Red $\dfrac{10}{30} \times 360\,° \quad = \quad 120\,°$

Yellow $\dfrac{5}{30} \times 360\,° \quad = \quad 60\,°$

Green $\dfrac{4}{30} \times 360\,° \quad = \quad 48\,°$

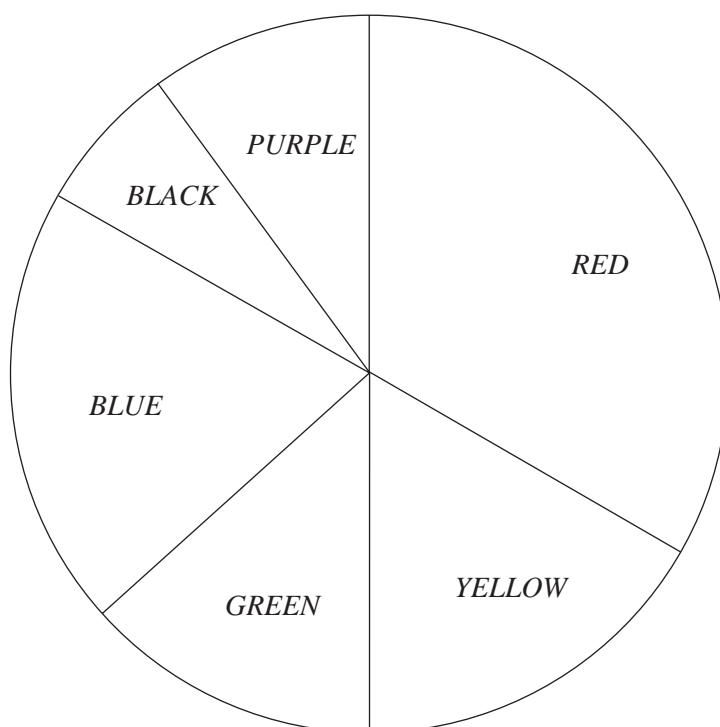Blue $\dfrac{6}{30} \times 360\,° \quad = \quad 72\,°$

Revision Test 11.2 (Academic)   Answers

Black $\dfrac{2}{30} \times 360\,° \;=\; 24\,°$

Purple $\dfrac{3}{30} \times 360\,° \;=\; 36\,°$ All correct   B5   *(5 marks)*
  (–1 for each mistake)

(d)

All correct   B4   *(4 marks)*
(–1 for each mistake)

(e)   Most popular: Red   B1
      Least popular: Black   B1   *(2 marks)*

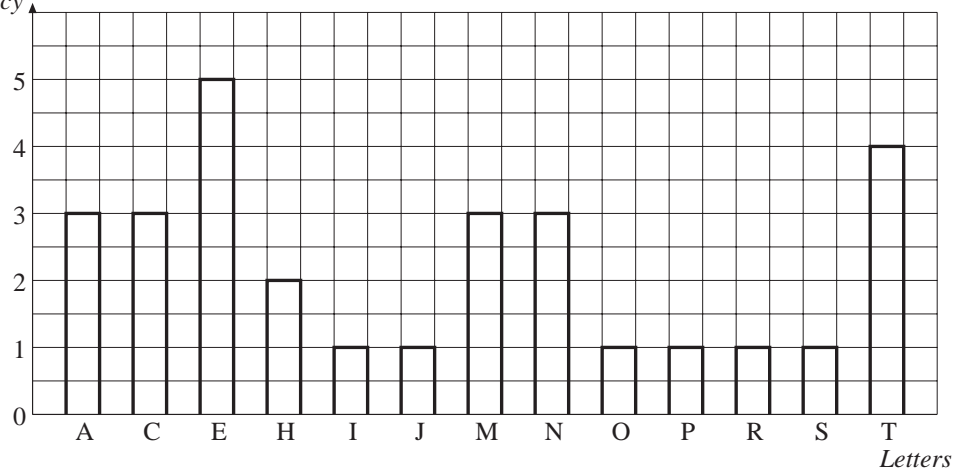2. (a)   Number of Children   B1
    (b)   Age and Height   B1 B1
    (c)   James   B1
    (d)   52   B1
    (e)   Green   B1
    (f)   James   B1
    (g)   Graham and Wendy   B1 B1   *(9 marks)*

(TOTAL MARKS 30)

Revision Test 11.3 (Express)   Answers

1. (a) *Frequency*

All correct   B7
(–1 for each mistake)

(b) E most often   B1

I, J, O, P, R, S : only once   B1 B1   *(10 marks)*
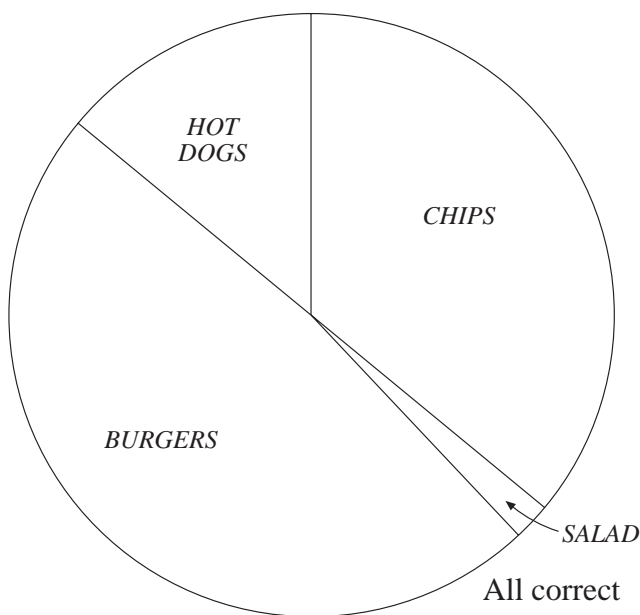
2. (a) Chips $\dfrac{18}{50} \times 360° = 129.6°$

Salad $\dfrac{1}{50} \times 360° = 7.2°$

Burgers $\dfrac{24}{50} \times 360° = 172.8°$

Hot Dogs $\dfrac{7}{50} \times 360° = 50.4°$ All correct   B5
(–1 for each mistake)

(b)

All correct
(–1 for each mistake)   B4   *(9 marks)*

Revision Test 11.3 (Express)   Answers

3. (a) None   ⎫
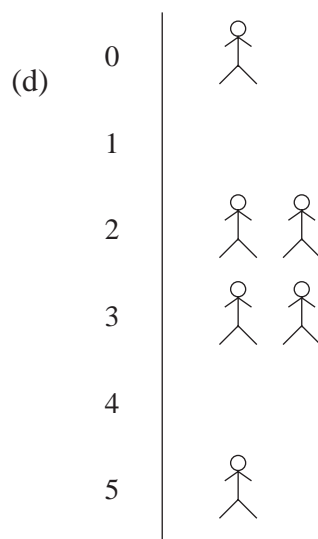   ⎬ Qualititative   B1
         Colour of eyes ⎭   B1

         Age   ⎫
                ⎬ Continuous Quantitative   B1
         Height ⎭   B1

         Number of Children: Discrete Quantitative   B1

    (b) James   B1

    (c) Graham and Wendy   B1 B1

    (d) 0

         1

         2

         3

         4

         5

                                        All correct
                                        (–1 for each mistake)   B3   *(11 marks)*

                                                (TOTAL MARKS 30)