Wednesday Extra Challenge with Answers

1.

In a survey people were asked what their favourite season of the year was. The results are shown in the pie chart below. If 48 people voted summer, how many people took part in the survey?

Our favourite time of year

- Spring
- Summer
- Autumn
- Winter

Explain your method.

Summer is a quarter of the whole pie chart and there are 4 quarters in a whole, so $48 \times 4 = 184$ people in total.

2.

96 people took part in this survey.

Our favourite pets

- Hamsters
- Horses
- Dogs
- Cats

How many people voted for cats?
$\frac{3}{8}$ of the people who voted for dogs were male. How many females voted for dogs?

What other information can you gather from the pie chart?
Write some questions about the pie chart for your partner to solve.

$\frac{1}{2}$ of 96 = 48

$\frac{1}{4}$ of 96 = 24

$\frac{1}{8}$ of 96 = 12

12 people voted cats.

48 people voted dogs.
$\frac{1}{8}$ of 48 = 6
$6 \times 3 = 18$.
18 females voted for dogs.

48

| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |

18   30

☐ Male ☐ Female

3.

200 girls and 100 boys were asked about their favourite meal.

These pie charts show the results.

fish and chips

fish and chips

200 girls   100 boys

Look at the pie charts.

For each statement put a tick (✔) if it is true or a cross (✘) if it is false.

Three-quarters of the boys chose fish and chips.   ☐

Three times as many boys as girls chose fish and chips.   ☐

Altogether, half of the children chose fish and chips.   ☐

25 more boys than girls chose fish and chips.   ☐

Indicate

| ✓ |
| ✗ |
| ✗ |
| ✓ |

4.

Miss Jones is carrying out a survey in class about favourite crisp flavours. 15 pupils chose salt and vinegar.

Ready Salted 72°
Prawn Cocktail
Cheese & Onion
Salt & Vinegar 180°

How many fewer people chose ready salted?

15 children take up half of the chart or 180°, therefore one pupil = 12°. 72° ÷ 12° = 6. 6 children like ready salted crisps. There are 9 fewer children than the number who like salt and vinegar.