## Year 5 - Statistics

## Two-Way Tables

This table shows the favourite meals for a youth club.
Complete the table.

|  | Roast <br> Dinner | Pizza | Pasta <br> Bolognese | Total |
| :---: | :---: | :---: | :---: | :---: |
| Male | 119 | 128 | 96 |  |
| Female | 122 | 108 | 110 |  |
| Total |  |  |  |  |

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Complete the table.

|  | Roast <br> Dinner | Pizza | Pasta <br> Bolognese | Total |
| :---: | :---: | :---: | :---: | :---: |
| Male | 119 | 128 | 96 | 343 |
| Female | 122 | 108 | 110 | 340 |
| Total | 241 | 236 | 206 | 683 |

## Varied Fluency 1

This table shows the ice creams sold by an ice cream van last week.

|  | Vanilla | Chocolate | Both | Total |
| :---: | :---: | :---: | :---: | :---: |
| Plain | A | B | C | D |
| Sprinkles | E | F | G | H |
| Sprinkles and Flake | I | J | K | L |
| Total | M | N | O | P |

Which letter shows:
A. How many ice creams were sold with only sprinkles?
B. The number of plain chocolate ice creams that were sold?

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| Sprinkles | E | F | G | H |
| Sprinkles and Flake | I | J | K | L |
| Total | M | N | O | P |

Which letter shows:
A. How many ice creams were sold with only sprinkles? H
B. The number of plain chocolate ice creams that were sold? B

## Varied Fluency 2

This table shows the sales of hot drinks at a school fayre.

|  | Tea | Coffee | Other | Total |
| :---: | :---: | :---: | :---: | :---: |
| Small | 156 | 262 | 55 | 473 |
| Medium | 84 | 174 | 46 | 304 |
| Large | 73 | 122 | 25 | 220 |
| Total | 313 | 558 | 126 | 997 |

A. How many large coffees were sold?
B. How many more coffees were sold than teas?

## Varied Fluency 2

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| Medium | 84 | 174 | 46 | 304 |
| Large | 73 | 122 | 25 | 220 |
| Total | 313 | 558 | 126 | 997 |

A. How many large coffees were sold? 122
B. How many more coffees were sold than teas? 558-313=245

## Varied Fluency 3

This table shows the first letter of the surnames in a primary school.
Complete the table.

|  | A-L | M-Z | Total |
| :---: | :---: | :---: | :---: |
| Year 1/2 | 165 | 154 |  |
| Year 3/4 | 124 | 165 | 289 |
| Year 5/6 | 157 |  | 332 |
| Total | 446 |  | 940 |

## Varied Fluency 3

This table shows the first letter of the surnames in a primary school.
Complete the table.

|  | A - L | M-Z | Total |
| :---: | :---: | :---: | :---: |
| Year 1/2 | 165 | 154 | 319 |
| Year 3/4 | 124 | 165 | 289 |
| Year 5/6 | 157 | 175 | 332 |
| Total | 446 | 494 | 940 |

## Problem Solving 1

This table shows the favourite subjects of students in a secondary school.

|  | Maths | English | Science | Total |
| :---: | :---: | :---: | :---: | :---: |
| Male | 105 | 86 | 304 | 495 |
| Female | A | 155 | 245 | 495 |
| Total | 200 | B | 549 | 990 |

Write two word problems where the answer would be A or B. Calculate the correct answer for each.

This table shows the favourite subjects of students in a secondary school.

|  | Maths | English | Science | Total |
| :---: | :---: | :---: | :---: | :---: |
| Male | 105 | 86 | 304 | 495 |
| Female | A -95 | 155 | 245 | 495 |
| Total | 200 | B -241 | 549 | 990 |

Write two word problems where the answer would be A or B.
Calculate the correct answer for each.
Various answers, for example: A = How many female students said that maths was their favourite subject? 200-105 = A A = 95 $B=$ How many fewer students said that English was their favourite subject compared to science? 86 + $155=B \quad B=241$

## Reasoning 1

This table shows the number of bath bombs produced by 3 people over 3 days.

The table is incomplete.

|  | Chloe | Jake | Ash | Total |
| :---: | :---: | :---: | :---: | :---: |
| Mon | 163 |  | 89 | 353 |
| Tues |  | 94 | 83 | 309 |
| Wed |  | 93 | 68 | 218 |
| Total |  | 288 |  |  |

Chloe says, "I made 67 bath bombs on Wednesday."
Do you agree with Chloe? Convince me.

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| Total |  | 288 |  |  |

Chloe says, "I made 67 bath bombs on Wednesday."
Do you agree with Chloe? Convince me.
Chloe is incorrect because...

## Reasoning 1

This table shows the number of bath bombs produced by 3 people over 3 days.

The table is incomplete.

|  | Chloe | Jake | Ash | Total |
| :---: | :---: | :---: | :---: | :---: |
| Mon | 163 | 101 | 89 | 353 |
| Tues | 132 | 94 | 83 | 309 |
| Wed | 57 | 93 | 68 | 218 |
| Total | 352 | 288 | 240 | 880 |

Chloe says, "I made 67 bath bombs on Wednesday."
Do you agree with Chloe? Convince me.
Chloe is incorrect because she made 57 bath bombs on Wednesday. $93+68=161.218-161=57$.
Or filling in other information; $163+132=295.352-295=57$.

## Reasoning 2

Using the information below, complete the two-way table.
Types of Monster Cards

|  | Sky | Water | Fire | Total |
| :---: | :---: | :---: | :---: | :---: |
| Sam |  | 174 | 42 |  |
| Ross | 57 | 163 | 62 |  |
| Lauren |  |  | 78 | 333 |
| Total |  |  | 182 |  |

- Sam has twice as many sky cards as fire cards.
- The friends have 509 water cards between them.
- Lauren has one fewer sky card than Sam.
- True or false? Sam has the most cards in total. Explain how you know.


## Reasoning 2

Using the information below, complete the two-way table.
Types of Monster Cards

|  | Sky | Water | Fire | Total |
| :---: | :---: | :---: | :---: | :---: |
| Sam | 84 | 174 | 42 | 300 |
| Ross | 57 | 163 | 62 | 282 |
| Lauren | 83 | 172 | 78 | 333 |
| Total | 224 | 509 | 182 | 915 |

- Sam has twice as many sky cards as fire cards.
- The friends have 509 water cards between them.
- Lauren has one fewer sky card than Sam.
- True or false? Sam has the most cards in total. Explain how you know.

I know it is false because...

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Using the information below, complete the two-way table.
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| Sam | 84 | 174 | 42 | 300 |
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- Sam has twice as many sky cards as fire cards.
- The friends have 509 water cards between them.
- Lauren has one fewer sky card than Sam.
- True or false? Sam has the most cards in total. Explain how you know.

I know it is false because Sam has 300 cards whereas Lauren has 333 cards in total.

