Year 7 · Statistics: Reading the Story in Data

Name: _____ Date: _____

This sheet helps you pull the story out of data, finding the middle, measuring the spread, spotting shapes and skew, and noticing when a graph is trying to trick you. Take your time and show your working!

Warm-up

1. Find the median of these numbers: 5, 2, 8, 3, 7.

2. Find the range of: 15, 22, 9, 31, 18.

3. Find the mean of: 4, 6, 8, 10.

4. Find the median of: 10, 4, 7, 2, 9, 6.

Practice

5. A Year 7 class was asked "How many brothers and sisters do you have?" The results were: three students said 0, eight said 1, six said 2, three said 3, one said 4, and one said 5 (22 students in total). Find the median and range, and describe the shape of the data.

6. Mia scored these goals in her 7 netball games: 4, 6, 5, 8, 6, 7, 6. What is the median number of goals, and what is the range?

7. A bar graph at Avondale Intermediate shows favourite lunches: pies 12, sushi 18, sandwiches 15, hot chips 25, fruit 8. Which is the most popular and which is the least popular lunch, and how many students were surveyed altogether?

8. Six friends timed how long it took to walk to Vertex Academy (in minutes): 12, 13, 11, 14, 12, 45. Work out the range. Is there an outlier, and how does it affect the range?

9. A cereal advertisement shows a bar chart claiming "Brand X has WAY more fibre!" but the chart has no title, no numbers on the vertical axis, and no units. Explain why this graph cannot be interpreted accurately.

10. In a spelling test most students scored highly, but a few scored quite low: 4, 6, 7, 8, 8, 9, 9, 9, 10, 10. Describe the shape of this data (symmetrical or skewed, and which way).

Challenge

11. Two hockey teams recorded their goals over 5 games. Kererū: 20, 22, 21, 23, 24. Tūī: 5, 40, 22, 10, 38. Find the median and range for each team, then say which team is more consistent and why.

12. Six numbers, written in order from smallest to largest, are: 3, 7, x, 12, 15, 20. The median of the six numbers is 10. Find the value of x, then work out the range.