Year 7 Integers and Data Mini Test

/47

Name: Answers **Date:**

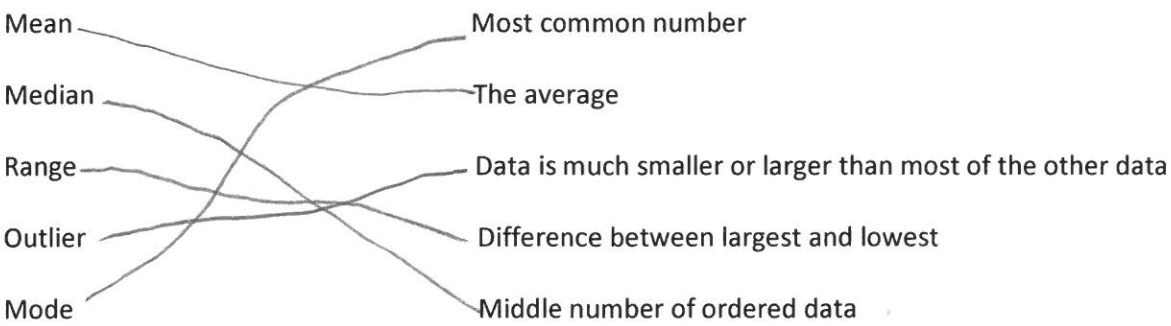
1 calculator and 1 A4 page of handwritten notes is allowed

Baldivis

	A Excellent achievement	B High achievement	C Satisfactory achievement	D Limited achievement	E Very low achievement
Data representation and interpretation	Collects, extracts and compares continuous data from a variety of primary and secondary sources. Predicts, tests and explains the influence of the identified issues on the collection, analysis and conclusions drawn on the data.	Collects and extracts continuous data from a variety of primary and secondary sources. Predicts, tests and explains the influence of the identified issues on the collection, analysis and conclusions drawn on the data.	Collects continuous data, identifying the issues involved in its collection.	Collects continuous data, and with support, identifies the issues involved in its collection.	Does not meet the requirements of a D grade.
Data representation and interpretation	Displays, interprets and compares two sets of numerical data choosing the most appropriate data display, including stem-and-leaf plots and dot plots	Displays and interprets a set of numerical data choosing the most appropriate data display, including stem-and-leaf plots and dot plots.	Constructs and interprets stem-and-leaf plots and dot plots to display numerical data.	With support, constructs and interprets stem-and-leaf plots and dot plots to display numerical data.	Does not meet the requirements of a D grade.
	Extracts relevant information from data displayed in multiple ways to calculate the mean, mode, median and range for data sets. Interprets and compares them in the context of the data.	Compares data sets by calculating the means, modes, medians and ranges and interprets them in the context of the data.	Calculates the mean, mode, median and range for a data set and describes the relationship between the mean and median in the context of the data.	Calculates the mean, mode, median and range for a simple list of ranked numerical data.	
	Compares, orders, adds and subtracts integers to solve meaningful, unfamiliar problems, applying efficient mental and written strategies.	Compares, orders, adds and subtracts integers to solve meaningful, familiar problems, applying efficient mental and written strategies.	Compares, orders, adds and subtracts integers to solve simple meaningful, familiar problems, applying mental and written strategies.	Uses diagrams and limited mental and written strategies to compare, order, add and subtract integers to solve simple meaningful problems.	

Question 1 (5 marks)

Draw a line to connect the word to its correct meaning



Question 2 (3 marks)

Answer the following questions using the data below

58, 64, 53, 82, 77, 57, 64

Determine the range 82 - 53 = 29 Determine the mode 64

Determine the median 64

53, 57, 58, (64), 64, 77, 82

Question 3 **(4 marks)**

A class of students have tested their best reaction times and the following results were obtained.

8, 10, 13, 14, 17, 19, 19, 23, 24, 28, 30, 35.

Put this data into an **ordered** stem and leaf below. (4 marks)

Reaction times ✓

✓	0	8
	1	0 3 4 7 9 9 ✓
	2	3 4 8 ✓
	3	0 5

✓ = ordered

(-½ for any data errors or missing pieces)

Key: 2|3 = 23

Question 4 **(11 marks)**

The below stem and leaf plots are the test results for 2 different classes.

Chapter 6 Test Scores

Class A Stem	Class A Leaves	Class B Stem	Class B Leaves
4	9	4	
5	5, 7	5	2, 7
6	6, 6, 8	6	2, 5, 8, 8
7	2, 8, 8, 8	7	2, 5
8	4, 5, 7, 8, 8	8	1, 4, 5, 7, 7
9	1, 5, 5	9	0, 1, 1, 5, 5, 5
10	0, 0	10	0

For Both classes find the following information.

Class A

Median 78, 84 : 2 = 81 ✓

Mode 78 ✓

Range 100 − 49 = 51 ✓

Mean 79 (1580 ÷ 20 = 79) ✓

Class B

Median (80 + 85) ÷ 2 = 82.5 ✓

Mode 95 ✓

Range 100 − 52 = 48 ✓

Mean 80 (1600 ÷ 20 = 80) ✓

(49 + 55 + 57 + 66 + 66 + 68 + 72 + 78 + 78 + 84 + 85 + 87 + 88 + 88 + 91 + 95 + 95 + 100 + 100) ÷ 20 = 79

(52 + 57 + 62 + 65 + 68 + 68 + 72 + 75 + 81 + 86 + 85 + 87 + 87 + 90 + 91 + 91 + 95 + 95 + 95 + 100) ÷ 20 = 80

Comment on which class you believe scored the best? Explain your answer using the following terms at least once; Class B did better

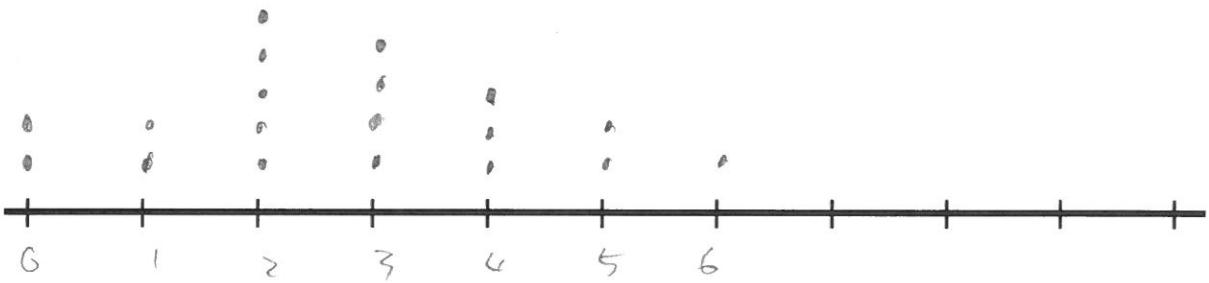
mean, mode, median, range, minimum, maximum (3 marks)

Class B has higher mean.
Class A has lowest minimum
Class A has 2 at maximum / class B only 1.
Class B has higher mode.
Class B has a lower range

$-\frac{1}{2}$ for any not used or used incorrectly

Question 5 **(6 marks)**

1) A maths class recorded how many siblings they had. The results were; ~~3, 6~~, 1, 2, ~~0, 3~~, 5, 4, ~~2, 3, 4, 5, 2, 4, 0, 3, 2, 2, 1~~. Use the line below to create a Dot Plot of this data. (4 marks)



What is the least common number of siblings? (1 mark)?

6

What is the most common number of siblings? (1 mark)?

2

Question 6 **2 marks**

Order the following from lowest to highest:

-2, 6, -6, 3, 1, -1, 0 -6 -2 -1 0 1 3 6

$-\frac{1}{2}$ for any out of order

Question 7 **2 marks**

Circle the highest number and underline the lowest number

a) -6 -4 (9) -12 2

b) 0 15 -2 -21 (19)

Question 8 **(2 marks)**

Place either a < or > in between each set of numbers:

a) -7 > -12

b) -5 ≤ 4

Question 9 **4 marks**

1. Complete the following:

a) 2 + -3 = -1

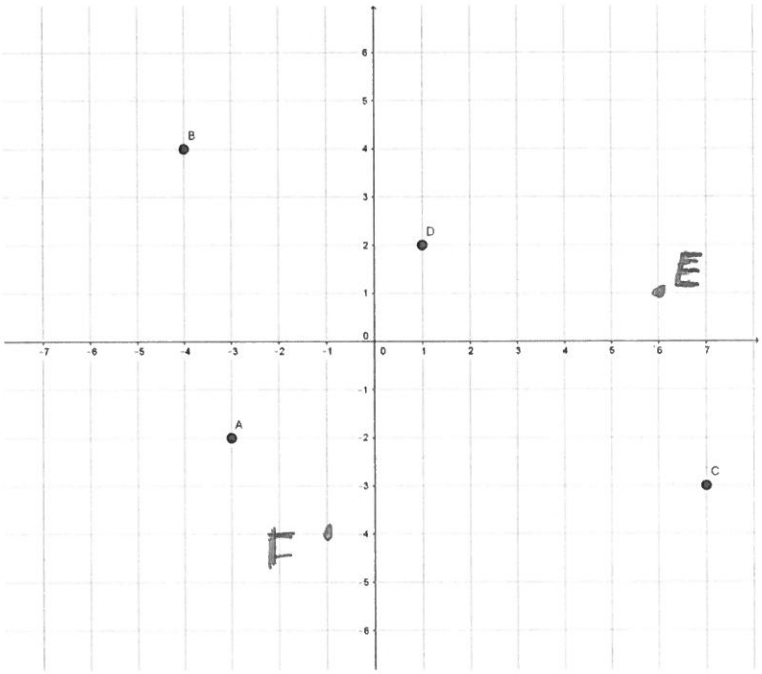
c) -5 + +2 = -3

b) -12 - -11 = -1

d) 8 - +3 = 5

Question 10 **6 marks**

Use the graph below to answer the following questions.



a) Write the coordinates for A, B, C & D.

A (-3, -2)

C (7, -3)

B (-4, 4)

D (1, 2)

b) Plot the following coordinates on the graph above.

E (6, 1) F (-1, -4)

Question 11 **(2 marks)**

Susan had $43 in the bank. She wants to buy a pair of shoes for $65. How much extra does she need?

43 - 65 = -22

She needs another $22

End of test