

Unit Test: Unit 5 Data Management

Pre-test instructions:

- 1 Read the instructions carefully.
- 2 Read the questions carefully.
- 3 Briefly, read through the entire test before starting. This will get your brain thinking about the questions in advance and you will do better on the test.
- 4 You do not have to answer the questions in order. If you are stuck on a question, leave it and go onto the next question. Your brain will continue to work on the skipped question and you will find it easier when you return to it.
- 5 Write as neatly as you can. It is really easy to make mistakes when your writing is messy.
- 6 Erasing wastes a lot of time and makes your paper look really messy. Simply put one line through the mistake and start over.
- 7 If you have really messed up, you may answer any question on a piece of 3 ringed lined paper.

Unit Test: Unit 5 Data Management

Question 1:

Grade 7 students completed 100 mental math questions in the weekly MAD MINUTE math test. The number of answers that each student got wrong is recorded below:

2, 6, 8, 1, 0, 12, 18, 22, 14, 10, 4, 0, 20, 17, 25, 33, 24, 11, 6, 9, 13,
12, 5, 7, 16, 3, 0, 27, 28, 36, 22, 18, 10, 15, 6, 3, 20, 11, 9, 0, 5, 35, 0,
19, 34, 29, 2, 40, 26, 14, 4, 8, 23, 31, 42, 0, 30, 17, 26, 0

1 a) Complete the frequency table for these data.

Mad Minute Test: Frequency of Mistakes Made by Students		
Number of wrong answers	Tally	Frequency
0 – 4		
5 – 9		
10 – 14		
15- 19		
20 – 24		
25 – 29		
30 – 34		
35 - 39		
40 – 44		

1 b) How many students wrote the test? How do you know? (Write your answer in complete sentences and show and explain your work)

- 1 c) Which type of graph would best display the data in the table? Explain your answer.
(Write your answer in complete sentences and show and explain your work)

2

- 1 d) On the graph paper, draw the graph you selected in part c). Be sure to include ALL the elements needed to make a great graph.

NOTE: This question is worth 5 marks. You must correctly show at least 5 features on your graph to get full marks.

5

ANSWER THIS QUESTION ON THE GRAPH PAPER.

- 1 e) What else do you know by looking at your graph? What information about the class can you learn by analyzing your graph? Use pictures, numbers and words.

NOTE: This question is worth 4 marks so you need at least 4 good points to earn full marks.

NOTE: Write your answer in complete sentences and show and explain your work

4

Question 4:

A student received these marks on 7 math tests: 91%, 75%, 95%, 80%, 83%, 86%, and 68%.

What mark will the student need on the 8th test to make each following statement true?

4 a) The mean of the tests is 84%.

2

4 b) The mode of the tests is 86%.

2

4 c) The median of the tests is 84%

2

Question 5:

5 a) Explain why this survey question might produce a biased response.

5 a.1) Survey Question: NHL hockey is boring. Do you think playing hockey is more fun than watching hockey? YES: _____ NO: _____

2

5 a.2) Rewrite the survey question so it does not produce a biased response.

2

5 b) A student used E-STAT to find the average wages of various occupations in Canada. Is the student using primary data or secondary data? How do you know?

2

5 d) A student measured the perimeter of a garden to find how much fencing would be needed. Is the student using primary data or secondary data? How do you know?

2

If you have just finished reading through the test, as instructed, clap your hands once and begin the test.
If you have already started the test, you will know to read through the test first next time.

Name: _____

Date: _____

1 d) On the graph paper, draw the graph you selected in part c). Be sure to include ALL the elements needed to make a great graph.

NOTE: This question is worth 5 marks. You must correctly show at least 5 features on your graph to get full marks.

