

Computing Revision Worksheet Key (Grade 6)
Unit 2: Managing Data , Topic 2.1+2.2+2.3

Question 1: Fill in the blanks in the following passage choosing the appropriate words from those given. Not all the words will be used. Some words may be used more than once.

Analyze	Continuous	Field	Record	Categorical
Discrete	Sensor	Data	Database	Integer
Interpret	Spreadsheet	Information	Question	

During a geography lesson, the teachers asks the students to do a statistical investigation to find out how much rainfall their city has in a year. The first thing in a statistical investigation that the students should do is ask a **question**, then they must collect **data** , after which they need to **analyze** the results and finally they can **interpret** those results to answer their question.

The teacher explained that once the rainfall is recorded, the information is entered into a spreadsheet. In this spreadsheet, each vertical line, which is labelled with letters of the alphabet, is called a **field** and each horizontal line, which is labelled with numbers, called a **record**.

As the lesson continued, the teacher reminded the class that numbers like 12.5 or 98.7 are examples of **continuous** data because they include decimal values. However data such as the number of cities in a country does not have decimal numbers, only integers, so it is called **discrete** data.

Finally, the students discussed other types of data they might collect in surveys, such as favorite color or type of pet. This type of data is known as **categorical** data because it cannot be measured numerically, only grouped together because of its type.

Question 2:

- A school records the number of students who bring lunch from home each day. Write **two types of data** the school may collect and give an example of each.
 - Type 1: **discrete** Example: **number of students bringing lunch**
 - Type 2: **categorical** Example: **type of lunch (veg/non veg)**
- A class wants to track the time each student takes to complete a puzzle. Which **computing tool** could they use to automatically record the time? **data logger**

3. A teacher creates a form asking students to write their favorite genre of book, fiction, non-fiction, sci-fi or classics. What type of data will be collected for answering this question? **categorical**
4. The spreadsheet shown here contains the marks of students in a math test. Write the **function** that we will use to calculate the average of the marks in cells C3 to C9. **=AVERAGE(C3:C9)**. Which cell will we write the function in? **C11**

	A	B	C	D
1				
2		Name	Marks (max 100)	
3		Ayesha	65	
4		Ahmad	88	
5		Ali	97	
6		Faraz	34	
7		Fatima	56	
8		Mehreen	99	
9		Sania	72	
10		Sum:		
11		Average:		
12				

5. A lab records the following data for a plant experiment: planting date, height in cm, type of soil, and sunlight hours. Identify the **data type** for each (continuous, categorical or discrete):

Planting Date: discrete	Height in cm: continuous
Type of soil: categorical	No of Sunlight Hours: discrete (can be taken as discrete if hours: minutes and seconds are measured instead of whole hours)

Question 3: Short Answer Questions.

- a. A class is conducting a survey on how many hours students spend reading each week. They record the data in a spreadsheet.
- a) Name one type of **continuous** data they would collect. **Number of hours spent**
- b) Name one type of **discrete** data they would collect. **Number of books**
- b. A school science lab uses a **sensor/ data logger** to monitor the water level in a tank every hour.
- a) What **type** of data does the level sensor in the lab record? **continuous**
- b) Name any other kind of data that can be collected automatically in a lab? **Temperature, humidity**
- c. Look at the online form on the right. The teacher has shared this form with her students to find out about her students' favorite school activity. Some questions allow typing answers, and others provide multiple-choice options.
- i) Identify one **open-ended question** example (Q no only): **2 or 4**
- ii) Identify one **closed-ended question** example (Q no only): **1 or 3 or 5**

<p>1. What is your favorite type of school activity?</p> <p><input type="checkbox"/> Sports</p> <p><input type="checkbox"/> Music</p> <p><input type="checkbox"/> Drama</p> <p><input type="checkbox"/> Art</p> <p><input type="checkbox"/> Academic clubs</p> <p>2. Suggest one new activity you would like the school to introduce.</p> <p>3. Do you participate in after-school activities?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>4. What do you enjoy most about participating in school activities?</p> <p>5. How often do you participate in school activities?</p> <p><input type="checkbox"/> Every week</p> <p><input type="checkbox"/> Once a month</p> <p><input type="checkbox"/> Occasionally</p> <p><input type="checkbox"/> Never</p>
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d. A spreadsheet contains the sales of school stationery items over a week. The teacher wants to know the total number of pens sold.

i) Which **function** should the teacher use in the spreadsheet? **SUM**

ii) If the teacher also wants to find the **average number of pens sold per day**, which function should be used? **AVERAGE**

e. A farmer records the following data in a spreadsheet for his crops:

- crop type
- number of seeds planted
- harvest date
- rainfall received (in mm)

a) Identify the **categorical data** in this scenario. **crop type**

b) Identify the **continuous data** in this scenario. **rainfall received**

c) Identify the **discrete data** in this scenario. **number of seeds, harvest date**

f. Explain the difference between **data** and **information**?

Data

- Raw facts and figures.
- Unprocessed and not yet organized.
- May not have meaning on their own.
- Example: 12, 15, 18, 20

Information

- Processed and organized data.
- Has meaning and is useful.
- Helps in making decisions.
- Example: The average mark of the class is 16.25.