# Topic Test 2 – Data

## Criteria

### Unit code, name and release number

MSL924003 - Process and interpret data Release 1

### Qualification/Course code, name and release number

MSL60118 Advanced Diploma of Laboratory Operations Release 1

MSL50118 Diploma of Laboratory Technology Release 1

MSL40118 Certificate IV in Laboratory Operations Release 1

MSL30118 Certificate III in Laboratory Skills Release 1

\*\*Amend the qualification box before distributing to the student. The information here should only contain the qualification the student is enrolled in\*\*

## Student details

### Student number

### Student name

## Assessment Declaration

This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.

No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.

I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is your own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date

Version: *1.0*

Date created: *1 November 2018*

Date modified: *23/04/2019*

For queries, please contact:

*Innovative Manufacturing, Robotics and Science Skills Point*

*TAFE Hamilton Campus*

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This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

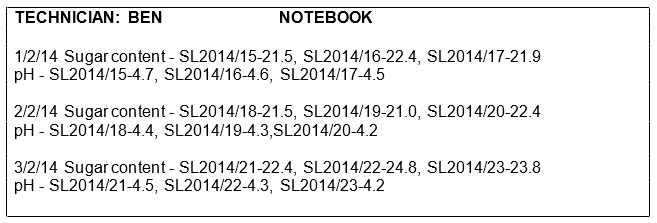
Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your knowledge in working with data from a variety of sources. |
| **Assessment Event number** | 2 of 7 |
| **Instructions for this assessment** | This is a written assessment and it will be assessing you on your knowledge of the unit.  This assessment has 4 questions. It is open book and will be conducted as a supervised test.  Assessment feedback is provided at the end of this document. |
| **Submission instructions** | This assessment will be undertaken in the presence of a teacher or assessor. |
| **What do I need to do to achieve a satisfactory result?** | To achieve a satisfactory result for this assessment all questions must be answered correctly. |
| **What do I need to provide?** | You should bring a pen/s, calculator and your Student Workbook. |
| **Due date/time allowed** | You will have 30 minutes to complete this assessment. |
| **Assessment feedback, review or appeals** | Your assessor will provided feedback as set out in the Unit Assessment Guide. Appeals are addressed in accordance with Every Students Guide to Assessment. |

## Short answer

Read each question carefully and follow the instructions to record your answer

1. Ben has done some analyses of grape samples, testing for sugar content and pH. Test results were transcribed (copied) from Ben’s notebook to a Laboratory Test Sheet as part of a report. Find and highlight the transcription errors in the table, that is, where the results were not copied correctly from Ben’s notebook.



**Laboratory Test Sheet – Grape Samples**

**Client: Winning Wines**

Table 1 Laboratory test sheet – highlight the results that were not copied correctly

| Date | SL Number | % sugar | pH |
| --- | --- | --- | --- |
| 1/2/14 | SL2014/15 | 21.5 | 4.7 |
| 1/2/14 | SL2014/16 | 22.4 | 4.6 |
| 2/2/14 | SL2014/17 | 22.9 | 4.5 |
| 2/2/14 | SL2014/18 | 21.5 | 4.4 |
| 2/2/14 | SL2014/19 | 21.0 | 4.3 |
| 2/2/14 | SL2014/21 | 22.4 | 4.2 |
| 3/2/14 | SL2014/21 | 22.4 | 4.5 |
| 3/2/14 | SL2014/22 | 24.8 | 4.8 |
| 3/2/14 | SL2014/23 | 23.8 | 4.2 |

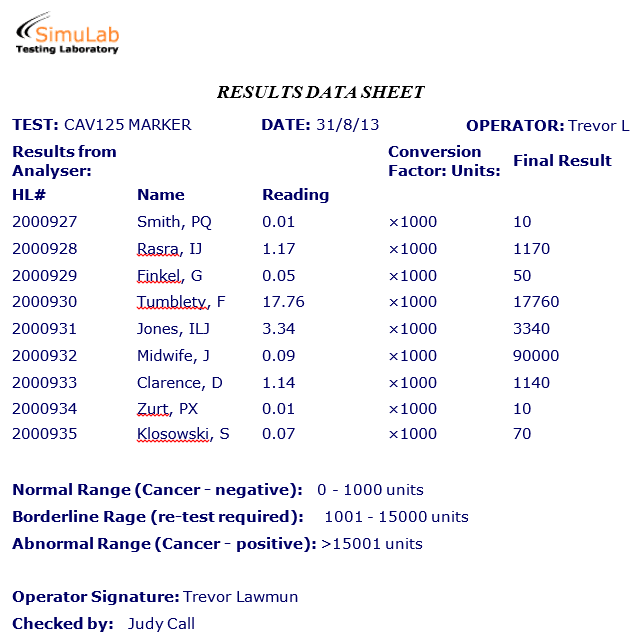
Highlight or circle the results that were not copied correctly from Ben’s notebook.

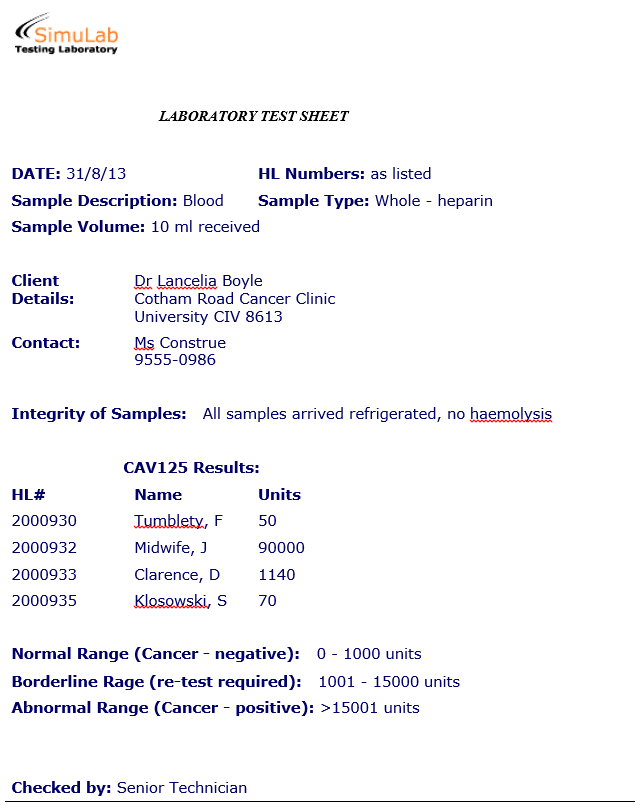
Answer correct ☐ Yes ☐ No

1. Test results must be checked to ensure they are copied correctly into final reports. Read the typical scenario below and perform the task and answer the questions on the next page.

Dr Lancelia Boyle medical specialist (oncology) calls the biological laboratory about a number of CAV125 (cancer marker results). She will not say if there is a problem or why exactly she is calling, but she wants you to check the results for the following patients (all tested on the same day - 31/8/13):

|  |  |
| --- | --- |
| Francis Tumblety | Duke Clarence |
| Severin Klosowski | Jillian Midwife |





Check the Results Data Sheet (used in the laboratory to record results and perform calculations) and the transcript of these results to the Laboratory Test Sheet (the result sheet sent to the customer).

1. Have any calculation mistakes been made? If so, what were they?
2. Have any transcription errors occurred? If so, what were they?

Answer correct ☐ Yes ☐ No

1. The liquid dispensed from an automatic pipette set at 500 µL is weighed to check it is dispensing the right amount as part of a calibration exercise. This is done 3 times. Identify the suspicious value from the list below and place an X in the column on the right.

Table 2 Multiple choice

| c | Put X next to your answer |
| --- | --- |
| 1. 0.5010g |  |
| 1. 0.5002g |  |
| 1. 0.5501g |  |

Answer correct ☐ Yes ☐ No

1. The table below shows how the readings from an instrument change as different concentrations of known standard solutions of caffeine are measured.

Look at the pattern in the data of how the absorbance increases as the concentration increases.

Identify (highlight or circle) the suspicious data point in the table.

**Analysis of caffeine by HPCL**

Table 3 Analysis of caffeine by HPLC

| Caffeine Standard mg/L | Absorbance |
| --- | --- |
| 20 | 0.09 |
| 40 | 0.21 |
| 60 | 0.88 |
| 80 | 0.39 |
| 100 | 0.52 |

Answer correct ☐ Yes ☐ No

## Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the feedback.*

### Assessment outcome

Satisfactory

Unsatisfactory

### Assessor Feedback

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***