# Appendix G:

# Sample of Task A (Alternative assessment project)

### Task A: Sample

Do **both** Tasks A **and** B, and submit them **together** in **one** assignment cover. Try to submit the assignment as soon as possible. Assignments received close to the closing date will take longer to process.

TASK A

Assume the following assignment questions have been set and that a student has given the answers provided after each question.

- Mark the assignment providing clear explanations (in the space next to each answer) when answers are wrong. Clearly indicate **exactly where** the student went wrong with his/her reasoning. You could, for example, use a cross, a circle, an arrow or some other distinctive mark to indicate where the error is. NOTE THAT IT IS UNLIKELY THAT YOU WILL BE ABLE TO SUBMIT THIS ASSIGNMENT ELECTRONICALLY. PLEASE POST IT IN GOOD TIME.
- Point out the student's mistakes regarding poor or incorrect presentation, and use of notation.
- Your explanation should not involve solving the problem or writing out the correct answer for the student! It should help the student understand what principle should have been applied, or what principle was applied incorrectly. It should also help the student understand why the notation is incorrect. Remember: DO NOT SIMPLY WRITE OUT THE CORRECT ANSWER.
- Refer the student to relevant sections of Books 2 and 3 that he/she should study again, for example, say "See Book 2, Study Units 4.1B and 5.1A".

  Where appropriate be more specific and give the relevant page numbers.
- Mark in a colour if possible so that we can easily distinguish between the student's answer and your comments.
- Cut out the marked assignment and submit it with Task B.

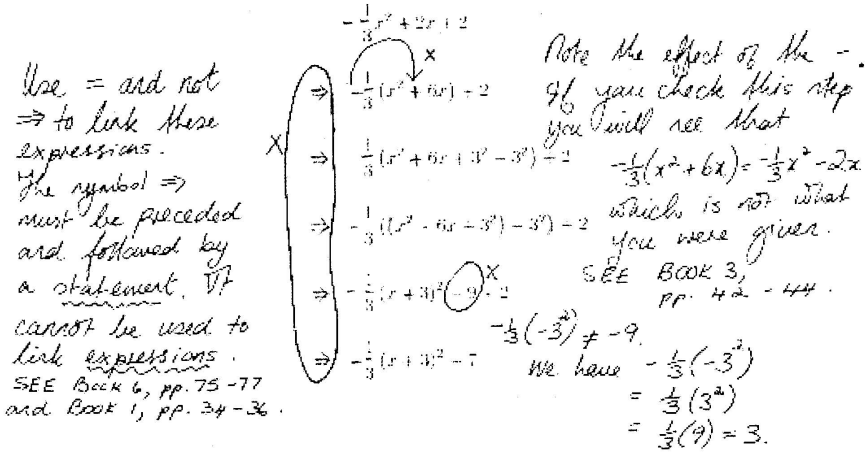
EXAMPLE OF MARKING AN ANSWER

Using the method of completing the square, write

$$-\frac{1}{3}x^2 + 2x + 2$$

in the form $a\,(x-h)^2 + k$.

Answer:




**Marks will be allocated as follows:**

- Noticing mistakes. [In the example above, arrows, circles and crosses were used to indicate mistakes.] **Note that there are errors in all questions.** (15)
- Explaining what the student has done wrong so that the student understands what was wrong, and what to do next. Also, pointing out the student's mistakes regarding poor or incorrect presentation and use of notation. [In the example this is written next to and below the answer.] (20)
- Referring the student to relevant study units/page numbers of Books 2 and 3. [In the example references are written in capital letters.] Your references must be clear and specific. (15)

**TOTAL: [50]**

**Question 7**

Working together, Tumelo and Jan can sand a floor in five–eighths of the time that it takes Tumelo to sand it by himself. Tumelo takes 6 hours to sand the floor alone. How long does it take Jan to sand the floor by himself.

**Answer:**

*Jan* $x$ *hours*

*Tumelo* 6 *hours*

*Jan and Tumelo* $\frac{5}{8} \times 6$ *hours*

$$x + 6 = \frac{5}{8} \times 6$$

$$x = \frac{15}{4} - 6 = -\frac{9}{4}.$$

*Since time cannot be negative we ignore the minus sign.*

*Jan sands the floor in* $\frac{9}{4}$ *hours, i.e. in* $2\frac{1}{4}$ *hours.*

**Question 8**

Find all the values of $x$ such that

$$(1-x)(x+3) \geq 0.$$

**Answer:**

$$\begin{aligned} & (1-x)(x+3) \geq 0 \\ \Leftrightarrow\ & 1-x \geq 0 \quad or \quad x+3 \geq 0 \\ \Leftrightarrow\ & -x \geq -1 \quad or \quad x \geq -3 \\ \Leftrightarrow\ & x \geq 1 \quad or \quad x \geq -3 \\ \Leftrightarrow\ & x \geq -3 \end{aligned}$$

**Question 9**

Find the solution set of $3^{4x} - 6.3^{2x} - 27 = 0$.

**Answer:**

$$\begin{aligned} & 3^{4x} - 6.3^{2x} - 27 = 0 \\ = \ & \left(3^{2x}\right)^2 - 6.3^{2x} - 27 = 0 \\ = \ & \left(3^{2x}+3\right)\left(3^{2x}-9\right) = 0 \\ = \ & 3^{2x}+3 = 0 \quad or \quad 3^{2x}-9 = 0 \\ = \ & 3^{2x} = -3 \quad or \quad 3^{2x} = 9 \\ = \ & 3^{2x} = -3^1 \quad or \quad 3^{2x} = 3^2 \\ = \ & 3^{2x} = -1 \quad or \quad 2x = 2 \\ = \ & x = -\tfrac{1}{2} \quad or \quad x = 1 \end{aligned}$$

*Solution set* $= \left\{-\frac{1}{2}, 1\right\}$.

**Solutions: Section A**
**(Correct answers to questions, with appropriate references ($r_i$ denotes $i^{th}$ reference)**

**Question 7** See Book 3, Study Unit 2.2B.

The given solution is a confused mixture of words and numbers, which makes it impossible to follow the student's reasoning. The answer is also incorrect.

The solution below should be easier to follow.

Let Jan complete the task by himself in $x$ hours. (Note that we want to find out how long it takes Jan to do the work on his own, and hence we introduce a variable, $x$, to denote what we want to know.)

Thus in one hour Jan can sand $\frac{1}{x}$ of the floor (i.e. $\frac{1}{x}$ represents the fraction of the task that Jan can complete on his own in one hour).

Tumelo completes the task by himself in 6 hours. Thus in one hour Tumelo can sand $\frac{1}{6}$ of the floor. When Jan and Tumelo work together they can sand the floor in $\left(\frac{5}{8} \text{ of } 6\right)$ hours, i.e. $\left(\frac{5}{8} \times 6\right)$ hours, i.e. $\frac{15}{4}$ hours. Thus in one hour Jan and Tumelo together can sand $\frac{1}{15/4}$ of the floor, i.e. $\frac{4}{15}$ of the floor. The equation

$$\frac{1}{6} + \frac{1}{x} = \frac{4}{15}$$

represents the information we have, since the left side represents the sum of the fractions of the floor that Jan and Tumelo, individually, can sand in one hour; by adding these fractions we have the fraction of the floor they can sand in one hour when they work together. The right side also represents the fraction of the floor they can sand in one hour when they work together.

We now solve this equation.

$$\begin{aligned}
& \frac{1}{6} + \frac{1}{x} = \frac{4}{15} \\
\Leftrightarrow \quad & \frac{x+6}{6x} = \frac{4}{15} && \text{The LCD of the terms on the left is } 6x. \\
\Leftrightarrow \quad & 15(x+6) = 4(6x) && \text{Cross multiply.} \\
\Leftrightarrow \quad & 15x + 90 = 24x \\
\Leftrightarrow \quad & -9x = -90 \\
\Leftrightarrow \quad & x = 10
\end{aligned}$$

Thus Jan takes 10 hours to sand the floor when he works by himself.

There are several indications of mistakes in the given solution.
Firstly, it is not logical that it takes Jan **less** time to sand the floor on his own than when he and Tumelo work together ($\frac{9}{4} = 2\frac{1}{4}$, and $\frac{15}{4} = 3\frac{3}{4}$).

Secondly, the answer is negative, which shows that there must have been a mistake. The student recognises that time cannot be a negative quantity, but incorrectly assumes that the negative sign can just be ignored.

**Question 8** See Book 3, Study Unit 2.3C; Book 2, Study Units 1.1C and 1.2A. r2; r3
It is important that we do not treat inequalities as though they are equations. Note that

$$ab \geq 0 \not\Rightarrow a \geq 0 \text{ or } b \geq 0.$$

In fact

$$ab \geq 0 \Leftrightarrow (a \geq 0 \text{ and } b \geq 0) \quad \text{or} \quad (a \leq 0 \text{ and } b \leq 0).$$

We can use either the above property of inequality, or a sign table (split-point method), or a parabola to solve the given inequality.

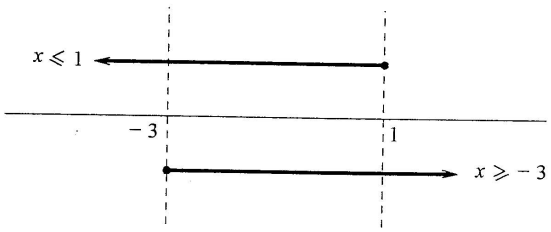
Since we study quadratic functions and parabolas later, we include this method here only for interest, for those of you who are familiar with parabolas.

**Property of inequality:** The product of two numbers is non-negative if **both** numbers are non-negative or if **both** numbers are non-positive. (See Book 3, Table 2.3.1.) r2

$$\begin{aligned} & (1-x)(x+3) \geq 0 \\ \Leftrightarrow\ & (1-x \geq 0 \text{ and } x+3 \geq 0) \quad \text{or} \quad (1-x \leq 0 \text{ and } x+3 \leq 0) \\ \Leftrightarrow\ & (-x \geq -1 \text{ and } x \geq -3) \quad \text{or} \quad (1 \leq x \text{ and } x \leq -3) \\ \Leftrightarrow\ & (x \leq 1 \text{ and } x \geq -3) \quad \text{or} \quad (x \geq 1 \text{ and } x \leq -3) \end{aligned}$$

We consider these options on a number line.

First option:




The values of $x$ that satisfy both conditions are $-3 \leq x \leq 1$.

Second option:


There are clearly **no** values of $x$ that satisfy both conditions.

Hence the values of $x$ that satisfy $(1-x)(x+3) \geq 0$ are $-3 \leq x \leq 1$.

**Using a sign table:**
The split points are 1 and $-3$, and the terms whose signs we consider are $1-x$ and $x+3$.

| | | $-3$ | $1$ |
|---|---|---|---|
| Interval | $x<-3$ | $-3<x<1$ | $x>1$ |
| Sign of $1-x$ | $+$ | $+$ | $-$ |
| Sign of $x+3$ | $-$ | $+$ | $+$ |
| Sign of $(1-x)(x+3)$ | $-$ | $+$ | $-$ |

Remember to arrange the split points in ascending order, so that, for example, the middle sign column represents the signs of the terms in the interval $(-3,1)$.

Note that when we determine the sign in each case we consider **any** number in the interval indicated. For example, for the first sign column, we consider any value of $x$ less than $-3$. Suppose we consider $x=-4$. Then

$$1-x=1-(-4)=1+4=5$$

which is positive, and we write " $+$ " in the first row of the first sign column;

$$x+3=-4+3=-1$$

which is negative, and we write " $-$ " in the second row of the first sign column.

Thus the product $(1-x)(x+3)$ will have the sign " $-$ " (the product of a positive number and a negative number is negative).

The other signs in the table are determined in a similar way.

The question requires values of $x$ for which the inequality is greater than or equal to zero. From the sign table we have " $+$ " for the interval $(-3,1)$ i.e. for values of $x$ such that $-3<x<1$; we also know that the product is zero at the split points, i.e. at $x=-3$ and at $x=1$. The solution is thus $-3\leq x\leq 1$.

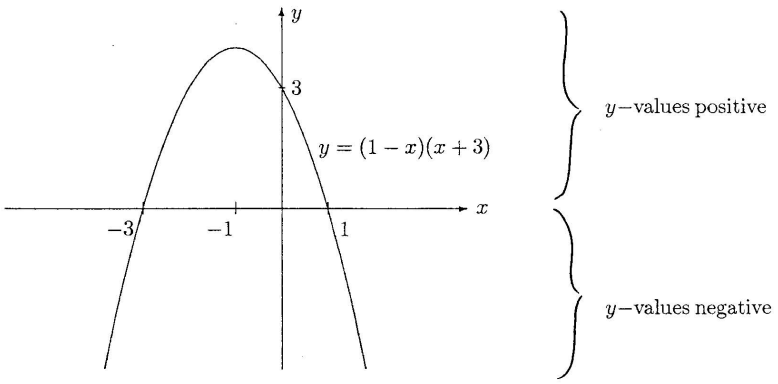
**Using a parabola:** (See Book 4, Study Unit 4.4A.)
Consider the parabola defined by

$$y=(1-x)(x+3).$$

We have

$$\begin{aligned} y &= x-x^2+3-3x \\ &= -x^2-2x+3. \end{aligned}$$

The $x$–intercepts of the parabola are 1 and $-3$; the axis of symmetry is thus the line defined by $x=-1$ (since $-1$ lies half way between $-3$ and 1). The $y$–intercept is 3, and the parabola opens downwards since the coefficient of $x$ is negative. The sketch on the next page shows the graph.




The graph lies on or above the $x$-axis (i.e. $y \geq 0$) for values of $x$ such that $-3 \leq x \leq 1$, and thus these are the values of $x$ for which $(1-x)(x+3) \geq 0$.

Apart from regarding the inequality as an equation, the student has also made other errors. It is stated that

$$-x \geq -1 \Leftrightarrow x \geq 1.$$

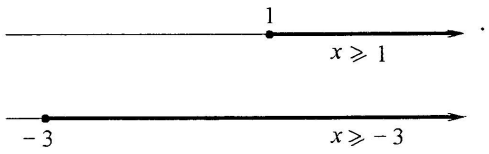
This is incorrect since the sign of an inequality changes direction when we multiply by a negative number – see p. 24 of Book 2. Thus we should have

$$-x \geq -1 \Leftrightarrow -(-x) \leq -(-1) \Leftrightarrow x \leq 1.$$

Also, it is stated that

$$x \geq 1 \text{ or } x \geq -3 \Leftrightarrow x \geq 1$$

which is incorrect, as we see by considering the following two number lines.




From the two number lines we see that

$$x \geq 1 \text{ or } x \geq -3 \Leftrightarrow x \geq -3.$$

**Question 9** See Book 3, Study Units 4.1A, 4.1B.

In this question the student has used " = " to mean " $\Leftrightarrow$ ". It is important to distinguish between these symbols, and to use them correctly. In this case the student has again forgotten to check the solution against the original question.

$$3^{4x} - 6.3^{2x} - 27 = 0$$
$$\Leftrightarrow \quad \left(3^{2x}\right)^2 - 6.3^{2x} - 27 = 0$$

This is a quadratic equation, of the form $k^2 - 6k - 27 = 0$, where $k = 3^{2x}$.
We factorise and obtain $(k-9)(k+3) = 0$,
i.e. $k - 9 = 0$ or $k + 3 = 0$.

$$\Leftrightarrow \quad 3^{2x} - 9 = 0 \text{ or } 3^{2x} + 3 = 0$$
$$\Leftrightarrow \quad 3^{2x} = 9 \text{ or } 3^{2x} = -3$$

Since $3^{2x} > 0$ for all values of $x$, we ignore $3^{2x} = -3$.
Now

$$3^{2x} = 9$$
$$\Leftrightarrow \quad 3^{2x} = 3^2$$
$$\Leftrightarrow \quad 2x = 1$$
$$\Leftrightarrow \quad x = 1.$$

The solution set is thus $\{1\}$.

In the given solution the student reasoned incorrectly, and assumed that

$$3^{2x} = -3 \Rightarrow 2x = -1.$$

However, the base on the left side is 3; the base on the right is $-3$; thus we cannot equate the exponents.

We have

$$3^{2x} = 3^{-1}$$

then it is correct to deduce that

$$2x = -1.$$

**Suggested marking**
**($m_i$ denotes $i^{th}$ mistake; $e_i$ denotes $i^{th}$ explanation)**

**Question 7**

Working together, Tumelo and Jan can sand a floor in five–eights of the time that it takes Tumelo to sand it by himself. Tumelo takes 6 hours to sand the floor alone. How long does it take Jan to sand the floor by himself?

**Answer:** A person cannot be equal to a number of hours. $m_1$

*Jan* = $x$ *hours*

*Tumelo* = 6 *hours*

*Jan and Tumelo* $\frac{5}{8} \times 6$ *hours*

Your answer consists of a mixture of variables, numbers, calculations – you have not explained what the statements/calculations mean. $e_1$

$$x + 6 = \frac{5}{8} \times 6$$ — Why? What does this follow from? $m_2$

$$x = \frac{15}{4} - 6$$

$e_2$ You can't just ignore a sign. The fact that you get a negative answer for time shows you that there is a mistake. $m_3$

$$= -\frac{9}{4}$$

$m_4$ It isn't logical that Jan takes less time when he works on his own than when he & Tumelo work together. $e_3$

*Since time can't be negative we ignore the negative sign. Jan sands the floor in* $\frac{9}{4}$ *hours.*

**Question 8**

Find all the values of $x$ such that

$$(1-x)(x+3) \geq 0.$$

**Answer:**

$e_5$ Remember: $-x \geq -1 \Rightarrow x \leq 1$ because the direction of the inequality sign changes when you multiply (or divide) both sides by a negative number.

$$\begin{aligned} (1-x)(x+3) &\geq 0 \\ \Leftrightarrow \quad 1-x \geq 0 \ &or \ x+3 \geq 0 \\ \Leftrightarrow \quad -x \geq -1 \ &or \ x \geq -3 \\ \Leftrightarrow \quad x \geq 1 \ &or \ x \geq -3 \\ \Leftrightarrow \quad x \geq 1. & \end{aligned}$$

$m_5$

$e_4$ Don't treat an inequality as though it is an equation, and try to apply the zero-product property. Use either a property of inequality ($ab \geq 0 \Leftrightarrow a \geq 0$ and $b \geq 0$ or $a \leq 0$ and $b \leq 0$) or the split-point method and a sign table. $m_6$

**Question 9**

Find the solution set of $3^{4x} - 6.3^{2x} - 27 = 0$.

3 (Erratum : corrected)

**Answer:** $e_6$ You cannot use = to connect statements. Link each statement with $\Rightarrow$ or $\Leftarrow$ (in this case both are acceptable) or use words like "if ... then," or "i.e", or "thus".

$$\begin{aligned} & 3^{4x} - 6.3^{2x} - 27 = 0 \\ = \ & (3^{2x}+3)(3^{2x}-9) = 0 \\ = \ & 3^{2x}+3 = 0 \ or \ 3^{2x}-9 = 0 \\ = \ & 3^{2x} = -3 \ or \ 3^{2x} = 9 \\ = \ & 3^{2x} = -3^1 \ or \ 3^{2x} = 3^2 \\ = \ & 2x = -1 \ or \ 2x = 2 \\ = \ & x = -\tfrac{1}{2} \ or \ x = 1 \end{aligned}$$

$m_7$

*Solution set* $= \{-\frac{1}{2}, 1\}$

There is no solution for $3^{2x} = -3$, since $e_7$ $a^x > 0$ for all $a \in \mathbb{R}$. Also, your $e_8$ deduction that $2x = -1$ could only follow from $3^{2x} = 3^{-1}$ which you don't have here. $m_8$ $m_9$

# Appendix H:

# Tutorial Letter 101 for MDA010-F/011-G

MDA010–F / MDA011–G: Tutorial Letter 101

Greetings from the University of South Africa

MDA011–G is a compulsory assessment (test) that all students have to complete if they plan to register for the Mathematics Access Module (MAT011–K). The purpose of this assessment is to find out what your current skills are and to suggest the best options for you in deciding on your course of study. For this reason **you are strongly advised to wait for the assessment results before registering for any modules** in the Science Faculty.

There are two test opportunities, one in January (the test is called MDA010–F) and one in May (that test is called MDA011–G). Because the purpose of the assessment is to help you find out more about problems you may experience **it will be much more helpful for you to write in January rather than in May**. By May it might be too late to make changes you could have made in January, and it might be too late to benefit fully from support that is available. You cannot study for the assessment, or prepare for it in any way, so there is no reason to put off the test until May.

This tutorial letter contains the following information.
1. Why you need to be assessed
2. Outline of test procedures
3. The kinds of questions in the assessment
4. Example of questions that could be asked
5. How to interpret the results
6. The support options available
7. Who to contact regarding support

**1. Why you need to be assessed**
Students who register for the Mathematics Access Module (MAT011–K) differ widely in numeracy and reading ability. Some have not studied mathematics at all beyond Grade 9. Many do not have English as their mother tongue, and may be used to a teacher who uses their home language for explanation. Many have not had their own textbooks and are not used to studying mathematics through print.

MAT011–K is a module which

- covers a wide range of concepts
- is print based
- is taught only through the medium of English.

It is very important that you do not underestimate the demands imposed by these three factors. Many MAT011–K students need more support than can be provided in the module itself. We need to identify who they are so as to provide them with suitable support for their particular needs. For this reason, as from 2004, prospective students will be required to complete the diagnostic assessment, called MDA010–F or MDA011–G.

The assessment is based on internationally accepted standards, adapted to suit our specific requirements. You can be sure that the assessment is valid and reliable, and used in many countries for similar purposes.

**2. Outline of test procedures**

When you register for the test you will be given a student number, an exam centre, a date on which the assessment will take place, and a date on which the results will be made known. The time set for the assessment is three hours, although it is unlikely to take that long. To be admitted to the exam centre you will need

- your student number
- your ID book (or some other acceptable form of identification, such as a driver's licence)
- two HB pencils (in case one is blunt or breaks) and an eraser.

The assessment questions will be marked, and the results of the January assessment will be made known early in February. Remember that taking part in the diagnostic assessment is compulsory for MAT011–K, which is a year module. You will receive the results in time to register for MAT011–K, if you choose to do so. The results of the May assessment will be available in June.

**3. The kinds of questions in MDA010–F / MDA011–G**

*Reading Comprehension*

This part of the assessment is designed to measure how well you understand what you read. Since you will be learning by reading, it is essential that you can read effectively. The assessment contains 35 questions. The questions are designed to

- investigate whether you can make the necessary links between items of information
- determine whether you can identify how sentences are related
- assess vocabulary levels.

*Arithmetic*

MAT011–K teaches basic number skills, so MDA010–F / 011–G will not attempt to measure any of the skills that you would be learning in the module. However, in order to cope with the content of the module, certain basic numerical skills are required. The assessment, which consists of 35 questions, will measure the extent to which you can

- carry out simple addition, multiplication, subtraction and division
- recognise relationships between numbers
- solve simple numerical problems
- apply simple formulas.

Please note that you will not be allowed to use a calculator. You may work out answers on the blank spaces of your question paper.

**4. Example of questions that could be asked**

Since this assessment is not based on any particular content knowledge, you cannot prepare in any way to take the assessment. You cannot learn for the assessment. Rather, it is designed to measure what you can do now, and whether you will be likely to cope with the demands of MAT011–K. The following are examples of the kinds of questions you could be asked.

*Reading comprehension*

Question 1

Read these two sentences:

A blanket of thick fog covered the area.
Visibility there was almost zero.

How are the two sentences related?

(a) The two sentences establish a comparison.
(b) The second sentence contradicts the first.
(c) The first sentence explains the meaning of the word 'visibility'.
(d) The second sentence indicates a direct result of the first.

Question 2

Read the paragraph below. Choose the best answer to the question.

There are two types of pottery that I do. There is production pottery - mugs, tableware, the kinds of things that sell easily. These pay for my time to do other work, which is more creative and satisfies my needs as an artist.

The author of the passage implies that

(a) artists have a tendency to waste valuable time
(b) creativity and mass-production are incompatible
(c) most people do not appreciate good art
(d) pottery is not produced by creative artists.

*Arithmetic*

Question 1

Sipho begins a task at half past one in the afternoon, and ends at quarter past three in the afternoon. How long did it take him to complete the task?

(a) $4\frac{3}{4}$ hours
(b) $1\frac{3}{4}$ hours
(c) $1\frac{1}{4}$ hours
(d) $4\frac{1}{4}$ hours

Question 2

Which pair of numbers below satisfies all the following conditions:

One of the numbers is bigger than 2 and the other number is less than $6\frac{1}{2}$.

Only one of the numbers is a fraction.

The numbers are both at least double $1\frac{1}{2}$.

(a) 3, $6\frac{1}{2}$

(b) $2\frac{1}{2}$, 6

(c) $2\frac{1}{4}$, 6

(d) $2\frac{1}{2}$, $6\frac{1}{4}$

**5. How to interpret the results**

Your assessment result will be a number, either 51, 52 or 53. These numbers are not percentages. They are simply computer codes for the purpose of keeping records.

**A score of 51** means you have **serious reading and arithmetic problems**, and will find it very difficult to cope with the quantity of work and content of MAT011-K. Although various forms of support are available, it is unlikely that you will be able to fill in all the gaps and study the module at the same time.

**A score of 52** means you have **several reading and/or arithmetic problems**, and will need extensive support in order to be successful in your studies. You may contact the Department of Mathematics, Applied Mathematics and Astronomy in order to find out whether your score reflects reading and arithmetic problems, or a problem in only one of these areas.

**A score of 53** means you **do not appear to have reading and/or arithmetic problems**, and may not need any additional support in order to cope with your studies. You are still welcome to contact the Department of Mathematics, Applied Mathematics and Astronomy in order to determine your performance in the two different areas.

**6. The support options available**

A certain amount of reading/language support is built into the module. There is also a video entitled "Read to Learn Maths", which some students may find useful. For many students more support will be necessary. Taking advantage of suggested support opportunities will also make demands on your time. Each individual student will need to make the decision on his/her likely chance of having sufficient time for the additional workload. If it is suggested that you have limited chance of success in MAT011–K unless you take part in a support programme, it is very important that you look carefully at the demands on your time, and at your attitude to the assistance offered. If you have a negative attitude towards support, or if you do not have enough time to participate, you should think very seriously about choosing a different direction of study. Mathematics is probably one of the most difficult modules to study through the medium of distance education. You need all the relevant academic skills in order to be successful:

- basic numeracy
- English reading skills

- English language proficiency
- time management strategies
- perseverance.

**If your score is 51:**

- You may need support at a level that UNISA cannot supply, and you should contact the **Institute for Continuing Education** (ICE). They will be able to suggest alternative options that may be more appropriate.
- You may also contact the **Bureau for Student Counselling and Career Development** (BSCCD) to discuss appropriate courses of action. These could include changing your study direction, utilising other support structures that are available, and/or utilising other ways in which you could bridge the gaps in your academic development. Professional counsellors and peer helpers are available at the Main Campus in Pretoria (OR Tambo Building, Room 7–24), at the Regional Centres in Cape Town, Durban and Polokwane, as well as at the Learning Centre in Johannesburg (see contact details under point 7). Please feel free to contact them to discuss your situation.
- The **John Povey Centre** at UNISA can suggest ways in which you can improve your reading skills sufficiently so that you can consider registering for MAT011–K (or an alternative module) at a later stage.

  The John Povey Centre offers several courses in English for second language and foreign language speakers. Through the UNISA Writing and Reading Centre it also provides support for students who need help in improving their reading and writing. The Povey Centre has offices on UNISA's Sunnyside Campus and at the Learning Centres in Durban, Cape Town and Polokwane. If you need to improve your reading skills they will be able to suggest a programme suited to your particular needs.

If you decide that you need to follow other options before being able to study successfully at Unisa, you may choose to cancel your registration of Science Faculty Modules (if you have already registered). This will apply only to those who wrote the test in January. To obtain a refund you need to apply by 13 March. Please consult the Access Brochure for details. Please note that UNISA **will not** be able to refund you for any textbooks you may have bought. This again highlights the fact that it is in your own best interests to take the assessment in January, and **register after obtaining the assessment results**.

**If your score is 52:**

- You need to contact the **Bureau for Student Counselling and Career Development** (BSCCD) to explore the variety of options available. Professional counsellors and peer helpers are available at the Main Campus in Pretoria (OR Tambo Building, Room 7–24), at the Regional Centres in Cape Town, Durban and Polokwane, as well as at the Johannesburg Learning Centre (see contact details under point 7).

- You could also contact the **Department of Student Support** (DSS). The Department of Student Support runs the UNISA Tutorial Support Programme through 6 Learning Centres and a number of Satellite Learning Centres. The fully fledged Centres are in Gauteng (Thutong Centre, in Sunnyside, Pretoria, and in Johannesburg), Umtata (Transkei), Durban (KZN), Polokwane (Limpopo) and Parow (Western Cape). The Satellite Centres are in Stanger and Pietermaritzburg (KZN), Wellington (Western Cape) and Shingwedzi (Polokwane, Limpopo). Nelspruit and Kimberley are also Satellite Centres, but fall under the Main Campus in Pretoria.

  The face–to–face tutorial programme is designed to help learners study more successfully than they could perhaps do on their own. Tutors with appropriate qualifications run the mathematics sessions; other expert assistance that is offered takes the form of student development workshops on study skills and exam preparation. Tutorials usually take place on Saturdays and after 17:00 on weekdays. UNISA students pay a nominal fee of R100 per semester (i.e. R200 for the year) to enroll at a Learning Centre. They may then attend as many tutorial sessions as they wish. For MAT011–K, 30 one–hour (or in some cases 15 two–hour) tutorial sessions are offered during the year. However, tutorial sessions are only arranged provided at least five students request tutorial sessions. These sessions relate only to the content of the module. For other assistance (reading, etc.) students need to attend additional sessions.

7. Who to contact regarding support

| DEPARTMENT | TYPE OF SUPPORT | TELEPHONE NUMBERS |
|---|---|---|
| Department of Mathematics, Applied Mathematics and Astronomy | Clarification of your score in the diagnostic assessment MDA101–F / MDA011–G | (012) 429 6755 |
| Institute of Continuing Education | Advice on study opportunities elsewhere | (012) 429 3250 |
| Bureau of Student Counselling and Career Development | Support with career choice and choice of modules; academic skills; personal and emotional issues that affect academic performance | Pretoria: (012) 429 3097<br>Cape Town: (021) 936 4130<br>Durban: (031) 335 1745<br>Polokwane: (015) 290 3441<br>Johannesburg: (011) 403 7111 |
| Department of Student Support (Pretoria) | General information about the Tutorial Support Programme offered at the Learning Centres (other than tutorial classes for specific modules) | Pretoria: (012) 429 3616 |
| Learning Centres | Specific information about support opportunities available at each Learning Centre<br>For the Satellite Centres (except Kimberley and Nelspruit): contact Durban (for Pietermaritzburg and Stanger), Polokwane (for Shingwedzi), Western Cape (for Wellington) | Thutong (Pretoria): (012) 484 1190<br>Johannesburg: (011) 403 0101<br>Parow: (021) 936 4122/3<br>Durban: (031) 335 1749<br>Polokwane: (015) 290 3417/9<br>Umtata: (047) 531 5002<br>Kimberley: (053) 832 6391<br>Nelspruit: (013) 755 2476 |
| John Povey Centre | Courses in English | (012) 481 2715 |
| The Unisa Writing and Reading Centre | Specific information about reading and writing support | (012) 481 2715 |

With best wishes

Unisa staff involved in MDA010–F / MDA011–G

# Appendix I:

## ACCUPLACER conversion table

**COMPANION To ACCUPLACER**
**Raw Score To ACCUPLACER Scale Score**
**Conversion Table For Regular Print Tests**

| Raw Score | Reading Comprehension | Sentence Skills | Arithmetic | Elementary Algebra | College-Level Mathematics | LOEP Language Use | LOEP Reading Skills | LOEP Sentence Meaning |
|---|---|---|---|---|---|---|---|---|
| 35 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| 34 | 116 | 119 | 118 | 119 | 118 | 115 | 115 | 116 |
| 33 | 111 | 118 | 114 | 116 | 116 | 111 | 110 | 112 |
| 32 | 107 | 117 | 110 | 113 | 114 | 107 | 105 | 108 |
| 31 | 103 | 115 | 106 | 110 | 112 | 104 | 100 | 104 |
| 30 | 99 | 113 | 102 | 106 | 108 | 100 | 95 | 100 |
| 29 | 96 | 111 | 98 | 102 | 104 | 95 | 90 | 96 |
| 28 | 92 | 108 | 93 | 98 | 100 | 90 | 87 | 92 |
| 27 | 88 | 105 | 89 | 94 | 96 | 86 | 84 | 88 |
| 26 | 84 | 102 | 85 | 89 | 92 | 81 | 82 | 86 |
| 25 | 79 | 98 | 81 | 84 | 89 | 77 | 79 | 84 |
| 24 | 75 | 94 | 76 | 80 | 86 | 74 | 76 | 82 |
| 23 | 71 | 91 | 72 | 75 | 83 | 71 | 73 | 79 |
| 22 | 67 | 86 | 68 | 71 | 79 | 69 | 69 | 76 |
| 21 | 63 | 82 | 64 | 67 | 76 | 65 | 66 | 73 |
| 20 | 59 | 78 | 60 | 63 | 73 | 63 | 63 | 69 |
| 19 | 55 | 73 | 56 | 58 | 71 | 61 | 61 | 66 |
| 18 | 51 | 69 | 52 | 54 | 68 | 59 | 59 | 63 |
| 17 | 48 | 64 | 48 | 50 | 65 | 56 | 57 | 60 |
| 16 | 45 | 59 | 44 | 46 | 61 | 53 | 55 | 57 |
| 15 | 42 | 54 | 41 | 43 | 57 | 51 | 53 | 54 |
| 14 | 39 | 49 | 37 | 39 | 53 | 49 | 51 | 51 |
| 13 | 36 | 44 | 34 | 35 | 50 | 47 | 48 | 48 |
| 12 | 34 | 39 | 31 | 32 | 47 | 45 | 45 | 46 |
| 11 | 32 | 35 | 28 | 29 | 44 | 43 | 43 | 44 |
| 10 | 30 | 31 | 26 | 26 | 40 | 40 | 41 | 42 |
| 9 | 28 | 28 | 23 | 24 | 36 | 37 | 39 | 40 |
| 8 | 27 | 27 | 21 | 22 | 32 | 35 | 37 | 38 |
| 7 | 25 | 25 | 20 | 21 | 28 | 33 | 34 | 36 |
| 6 | 23 | 23 | 20 | 20 | 24 | 29 | 31 | 32 |
| 5 | 22 | 22 | 20 | 20 | 20 | 25 | 27 | 28 |
| 4 | 20 | 20 | 20 | 20 | 20 | 20 | 24 | 24 |
| 3 | 20 | 20 | 20 | 20 | 20 | 20 | 22 | 20 |
| 2 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 1 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 0 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |