VIVA Exam – Mathematics – Year 9 – HT5

Your **Viva exam** supports you in developing your confidence, self-expression and curricular understanding.

It does so by improving your **oracy**.

When a University student writes a thesis (their final paper or exam), they have to defend what they have written whilst their Professors ask questions. This is often referred to as a **Viva exam**.

Viva is short for **Viva Voce,** this is the Latin for **'with living voice'**, or in other words **spoken** not written.

Across this Half Term you will prepare for a **Viva exam** on the curricular area we are studying, this will be **instead** of your End of Term exam.

Your teacher will support you in **preparing** by **suggesting** what you may speak about, **providing** materials to support you, **checking** in on your planning and progress and giving you **feedback** after you have spoken so that you know what you have done well and what you will need to improve, next time.

This pack contains the basic materials and guidance you will need, to prepare for your **Viva exam**.

'Viva' Exam – Mathematics– Year 9 – HT5

Student Name:

Expectations:

To talk about straight line graphs, using a table of values for plotting straight line graphs, calculate gradient, identify y-intercept and write the equation of a line (articulating the topic without a poster or visual aid will attract more marks).

- What maths skills is very important for completing a table of values?
- How would you plot a straight-line graph?
- How can you tell from a graph if the value of m is positive or negative?
- How can you tell from the equation of a line whether the gradient is positive or negative?
- What is the same and what is different about the lines $y = 3x + 4$ and $y = 3x - 4$?
- In $y = mx + c$, what do m and c represent?
- In $y = mx + c$, what do y and x represent?
- What do you know about two lines if they have the same gradient?
- Is the equation of the line $2x + y = 6$ given in the form $y = mx + c$? How do you know?
- Why is it useful to write equations of lines in the form $y = mx + c$?
- What part of the equation $y = mx + c$ represents the gradient/ y-intercept?
- Does the point (4, 5) lie on the line $y = 2x + 1$? Explain how you know.

Resources Permitted:

-Cue card notes are permitted; however, higher marks will be received for speaking without aides.

Marking and Grading:

As with your End of Term, your Viva will be given a 0-9 grade. Students should always aim to meet or exceed their target grade. However, there is no need to feel bad if you don't, all this means is that you are learning and making progress!

Your total marks will be multiplied by five to produce a percentage, just like you get in your other End of Term exams. The teacher will then convert this percentage so that your termly report can show a grade in this area.

Viva exams are marked in four categories. Please see the mark scheme below:

Preparation **Mark:**	**Level 3 – Award 4-5 Marks** Complete and evidence of examples.
	Level 2 – Award 2-4 Marks Purposeful but incomplete evidence (not having example/s to support the topic) .
	Level 1 – Award 0-2 Marks Limited or no written evidence of preparation.
Timing and Content **Mark:**	**Level 3 – Award 4-5 Marks** Speaks for the full allocated time, without pause or interruption. Speaks exclusively on the topic, using mathematical vocabulary. Speaks without the use of any written or visual aids.
	Level 2 – Award 2-4 Marks Speaks for more than half of the allocated time, with limited pause or interruption. Speaks exclusively on the subject selected but lacks the use of mathematical vocabulary at times.
	Level 1 – Award 0-2 Marks Speaks for less than half of the allocated time and or fails to focus on the topic, does not use any mathematical vocabulary
Manner and Presentation **Mark:**	**Level 3 – Award 4-5 Marks** Projects well, uses clear communication, structured content, demonstrates conceptual understanding and engaging delivery with exemplary effect.
	Level 2– Award 2-4 Marks Projects well but unclear communication at times, content unstructured, demonstrates conceptual understanding inconsistently, engaging delivery at times.
	Level 1 – Award 0-2 Marks Fails to project well, unclear communication, lack of conceptual understanding, delivery not engaging
Response to questioning **Mark:**	**Level 3 – Award 4-5 Marks** Responds convincingly and thoughtfully to both questions, in line with the Level 3 criteria for Timing and Content and Manner and Presentation.

	Level 2 – Award 2-4 Marks Responds convincingly to elements of both questions or to just one question but not the other.
	Level 1 – Award 0-2 Marks Is unable to respond at all or convincingly enough, to either question.

Overview:

During this Viva you will need to plan and prepare to speak on three points of interest from straight-line graphs . You will also need to answer two questions (which you won't know in advance) from the audience, in other words, your peers and teacher.

1. **Stage 1 – Define straight-line graphs, gradient, y-intercept, & equation of a line ensure to cover every aspect of the expectations.**
2. **Stage 2 – Plan your speech, put your ideas together into notes.**
3. **Stage 3 – Practice your speech, learn to do it without notes and with greater confidence.**
4. **Stage 4 – Share your speech with parents, peers and your teacher, for feedback.**
5. **Stage 5 – Deliver your speech to the class and your teacher.**

Stage 1
When deciding on the subject of your speech you should: -Select mathematical ideas related to your assigned topic. -Ensure that you are confident in your understanding of these concepts. -Ensure that you are happy to study more about the topic given, both in and outside of class.
Stage 2
When planning your speech you should consider: -How will you introduce the topic to engage your audience? -Precision and timing, what will the purpose of your presentation, its key theme, be, how will you capture this in the time you have?
Stage 3
When practicing your speech you should: -Practice repeatedly those parts you are weakest in, do not waste time practicing again and again, what you already know. -Practice aloud using visuals (diagrams) -Work on your tone, pace and confidence especially when working through an example
Stage 4
When sharing your speech you should consider: -What are the initial reactions of others, do they seem more interested in some parts of the speech that others? -What questions are people asking you afterwards, could these be questions that are likely to be asked of you on the day? -What feedback do your audience give you on the use of your voice, your body language and communication style, are you confident and present enough?
Stage 5
When delivering your speech you should: -Have notes with you in case you get stuck, but attempt to go by memory as much as possible. -Position yourself in the room, standing, at the front, use the space and consider walking around it as you speak.

-Focus on the faces of your audience, look for signs as to whether they are engaged or excited, consider whether you need to modulate your tone, increase volume, or lean move heavily on a rhetorical device.