

A Guide for Students

Mathematics 30–1

Mathematics 30–2



Preparing to Write the Diploma Examination
2018–2019

This document was written primarily for:

Students	✓
Teachers	
Administrators	
Parents	✓
General Audience	
Others	

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This guide has been prepared by Provincial Assessment Sector staff at Alberta Education. We develop the diploma exams and are involved in the assessment of thousands of high school students each year. The purpose of this guide is to provide students with information that will increase their likelihood of success on the math diploma exams.

Guides for Students for diploma-exam subjects other than math, as well as additional materials on how to prepare for diploma exams, can be found on the Alberta Education website at education.alberta.ca.

Design of Diploma Exams

Math diploma exams contain multiple-choice, numerical-response, and written-response questions. Multiple-choice questions are worth one mark each and require you to select the best answer from the given choices. Numerical-response questions are worth one mark each and require you to fill in a sequence of numbers or record a calculated value on your answer sheet.

***NEW**

Written-response questions in Math 30–1 are worth five marks each and written-response questions in Math 30–2 are worth seven marks each. These questions require you to communicate your understanding of a math concept or apply an algebraic process to solve a problem. Additional written-response information for math diploma exams is available online at <https://education.alberta.ca/mathematics-10-12/diploma-exam-info/everyone/diploma-exam-information/>.

The number and types of questions on each math diploma exam are shown in the table below.

Subject	Number of Multiple-choice Questions	Number of Numerical-response Questions	Total Number of Written-response Questions
Mathematics 30-1	24	8	3
Mathematics 30-2	24	8	2

Each of these diploma exams is developed to be completed in 3 hours; however, you may take up to 6 hours to complete the exam, if needed.

Special accommodations are available to some students, such as audio narration or a scribe. For more information, contact your school administration or counselling department.

Preparing for Diploma Exams

The best way to prepare to write diploma exams is to start with a positive attitude and establish good study habits. Set yourself up for success at the beginning of the course. Attend class regularly, actively participate in classroom activities, and complete all assignments. The skills and knowledge that you gain in the course are essential to your success on the diploma exam.

Preparation for diploma exams goes beyond memorization of facts. Be prepared to analyze information, interpret data, and apply your knowledge and skills to new contexts. The General Scoring Guides and the *Mathematics Directing Words* are available to help you become familiar with the requirements of the written-response questions on the exams. The scoring guide for each math course and the list of directing words can be found in [Diploma Exam Information](#) on the Alberta Education website.

Course specific multiple-choice and numerical-response sample questions and previous diploma exam questions are available at <https://questaplus.alberta.ca>.

Exam Day

On exam day, arrive early and get organized. You are responsible for providing your own HB pencil, eraser, and approved graphing calculator for writing diploma exams. No dictionaries, electronic devices, papers, notes, textbooks, or blank paper for rough work are allowed. A ruler, protractor, and highlighter may be used for math exams. A formula sheet is included in the math exam booklet.

Remember to relax and do your best. Mark questions that you cannot immediately answer and come back to them later. Pace yourself and answer every question. You are encouraged to use your exam booklets for planning, calculations, and working through your responses.

Throughout the exam, carefully read the instructions, contexts, and questions. For multiple-choice questions, read the stem of the question and try to formulate an answer to the question in your mind before looking at the four choices given. Some questions are more difficult than others and will require you to choose the best answer among several alternatives that seem plausible. For numerical-response questions, pay close attention to the instructions below the question so that your answers are expressed or rounded appropriately with the correct number of digits. For written-response questions, read each question carefully, noting any **bolded** directing words.

You are encouraged to try and solve the problems in all parts of each written-response question as an attempt at a solution may be worth partial marks. For full marks, your responses must address all aspects of the question.

During the administration of diploma exams, students are expected to adhere to the rules found at <http://education.alberta.ca/writing-diploma-exams/rules-for-students/>.

Using Calculators

Math diploma exams require the use of an approved graphing calculator. The calculator policy, calculator criteria, and keystrokes required for clearing approved calculators can be found in the [General Information Bulletin](#) on the Alberta Education website.

Rescores and Rewrites

If you believe a mistake has been made in the scoring of your exam, you can request that your exam be rescored. Keep in mind that if you do request a rescore, the mark resulting from the rescore will be your final exam mark, even if it is lower than the original mark.

You may choose to rewrite a diploma exam during regularly scheduled writing sessions. If you rewrite a diploma exam, the highest mark you achieve will be counted.

Math diploma exams are offered during the following writing sessions:

Subject	Writing Sessions
Mathematics 30-1	November, January, April, June, August
Mathematics 30-2	January, April, June, August

Information on rewrites and rescores, including deadlines, forms, and fees, can be found in the [General Information Bulletin](#) on the Alberta Education website.

Frequently Asked Questions (FAQ)

How much is my diploma exam worth?

Your school-awarded mark is worth 70% of your final mark in any course that has a diploma exam. The exam mark is worth the remaining 30% of your final mark.

Are the machine-scored part and the written-response part of the exam weighted the same?

In both math courses, the multiple-choice/numerical-response part of the exam will count for 75% of the diploma exam mark and the written-response part of the exam will count for 25% of the diploma exam mark.

Do all diploma exams in one subject have the same difficulty?

All exams in a given subject are built to the same blueprint specifications and standards, regardless of when they might be administered.

Will all of the curriculum be covered on the diploma exam?

Although it is impossible to cover every single outcome in a program of studies on one test, every effort is made to cover as much of it as possible, with the focus on applying your knowledge and skills to contexts you might never have seen before.

Does the diploma exam have more difficult or different content compared to what is learned in class?

The diploma exam is based on the program of studies for the course. You will have learned the knowledge and skills outlined in the program of studies, so you should be well prepared for your diploma exam. Sometimes you will see unfamiliar contexts on the diploma exam, but the understanding you gained in class will have prepared you to integrate your knowledge and skills with the new context so that you can answer the question.

Are all of the questions on the diploma exams new each year?

Approximately 20% of the questions on a diploma exam have already been administered. These questions serve as anchor items, which allow exams administered at different writing sessions to be compared to each other. The remaining (approximately 80% of) questions are completely new each time.

Where can I find copies of previously administered diploma exams?

Some questions that have appeared on previous diploma exams are available both on Quest A+, Alberta Education's online testing site, and on the Alberta Education website in a section called "Exemplars."

Could there be a mistake on the diploma exam?

Diploma exams are developed and reviewed thoroughly and meticulously to very high standards. Should an error occur on a diploma exam, various steps can be taken to address the error. In such rare cases, every effort is made to ensure fairness to students.

Do I even need the context box to answer the question?

Yes, you should read each context box carefully because the information is necessary to correctly answer the question.

Are there trick questions?

There are no questions on diploma exams that are designed to trick you.

If I do not erase an answer completely, could it affect my score?

For machine-scored questions, the scanning machines are generally able to differentiate between erased marks and intended marks. However, it is always in your best interests to erase completely. If you feel that incompletely erased marks may have affected your results, you can apply for a rescore. For written-response questions, your responses must be presented in a well-organized manner. Responses that you change or do not want to be marked should be erased completely or crossed out.

If I calculate an answer that is not one of the multiple-choice alternatives, should I pick the closest one?

Choosing the closest answer is one strategy, but this situation might indicate that you have made a mistake. If you have time, read the context and question over again and try to analyze where you might have made an error.

Is the longest answer usually the correct one for multiple-choice questions?

The longest answer is not necessarily the correct answer. A good strategy is to read the question and determine the answer for yourself before you look for that answer among the multiple-choice alternatives.

If I round a numerical-response answer or written-response incorrectly, am I automatically wrong?

Instructions for rounding will be given in each numerical-response and written-response question when rounding is expected. Read and follow the instructions carefully, using rounding rules appropriate for mathematics. In certain cases, multiple correct answers are accepted to account for differences in rounding.

What happens if I get a negative answer for a numerical-response question?

The negative sign will precede the response blank if the correct answer is a negative number. If there is no negative sign in front of the blank and you get a negative answer, read the context of the question over again and try to analyze where you might have made an error.

Will I be expected to show algebraic solutions for written-response questions?

Some of the written-response questions will ask for a demonstration of algebraic skills and some will not. For example, you may be asked to explain math concepts or provide justifications in which case your answer may be written in paragraph or point form. All responses must include pertinent ideas, calculations, formulas, and correct units where applicable.

Can I bring a graphing calculator and a scientific calculator to the exam?

A graphing calculator that is approved by Alberta Education is required for the math exams. You may bring a scientific calculator, provided it does not have properties that are prohibited. The list of prohibited properties can be found in the [Calculator Use Rules](#) section of the General Information Bulletin on the Alberta Education website.

Could there really be more than one right answer?

Multiple-choice questions have only one correct answer. Sometimes, you will need to choose the best answer among several that seem plausible. Some, but not all, numerical-response questions have more than one correct answer, but you only need to provide one correct answer to receive the mark for that question.

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How do I register to write a diploma exam?

If you are taking a diploma exam course through an accredited Alberta high school, then your school will register you to write the exam. Alternatively, you can register to write or rewrite a diploma exam using the self-service website [myPass](#). Some diploma exam sessions require students to pre-register and do not allow students to just walk in and write the exam. Specific rules regarding which sessions and exam-writing centres allow unregistered writing can be found in the [General Information Bulletin](#) on the Alberta Education website.

What if I am a mature student?

A mature student is a person 19 years of age or older as of September 1 of the current school year, or who already holds a high-school diploma from the Province of Alberta or an equivalent high school diploma.

If you are a mature student, you may write a diploma exam without taking the course. You may write the exam in any writing session, but you must register online with [myPass](#) or submit a paper form ([Diploma Exam Registration/Rewrite Fee Payment Form](#)) to register for the exam before the deadline. The registration deadline varies depending on the writing session you select. You should also decide where you will write the exam. Then, speak to the principal of the high school or exam-writing centre to reserve a space and make sure an exam is available for you.

What am I allowed to bring into the exam room?

In addition to an HB pencil, pen, eraser, and highlighter, you may bring an approved graphing calculator, a ruler, and a protractor into the exam room. You are not allowed to bring in print materials, including papers, notes, books, or blank paper for rough work, and you are not allowed to bring in electronic devices, including audio players, cellphones, headphones, wearable electronics, or other devices.

If I look at a cellphone during a diploma exam, will my exam results be disallowed?

Cellphones are not permitted in the exam room. If you are in possession of a cellphone, even if it is turned off, or any other unauthorized materials, your diploma exam results could be invalidated.

How can I receive accommodations?

All students may now use extra time to write diploma exams. This means that you have up to 6 hours to complete math diploma exams, if you need it. The exams are still designed so that the majority of students can comfortably complete them within 3 hours. Accommodations for diploma exams, other than extra time, are ordered, reviewed, and managed at the school level. Accommodations that involve physical materials must be formally requested using an order form that must be submitted before a deadline. Be sure to make these arrangements well in advance of your diploma exam. Consult your school counsellor or principal for more information.

Am I allowed to bubble in my answers after time is up?

No, you are not allowed to fill in bubbles after time is up. Make sure that you have filled in the bubbles on the answer sheet before the end of the exam administration time.

Who marks the exams?

The multiple-choice and numerical-response questions on math diploma exams are machine scored. Written-response items are scored by math teachers during the scheduled marking sessions. Rescores are hand scored by staff in the Provincial Assessment Sector of Alberta Education.

Will I be penalized if I rewrite a diploma exam?

There is no penalty for rewriting a diploma exam. Regardless of the number of times you write a diploma exam, your highest mark will be the one that is shown on your transcript.

Additional Information

More detailed information about math diploma exams can be found in the subject-specific information bulletins, which are available on the Alberta Education website at <https://education.alberta.ca/mathematics-10-12/diploma-exam-info/>.

Contact Information

If you have questions about writing a math diploma exam, feel free to contact us.

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