

TestGen®

QUICK REFERENCE

User Guide

Computerized Testing



This text is accompanied by **Tamarack Software's TestGen®** testing software, which allows you to quickly create a customized test using the test bank that accompanies this text, or by authoring your own questions. You decide the number, type, and order of test questions with a few simple clicks. TestGen® is a downloadable application that allows you to create your tests without an Internet connection. Download the software and question files below that are specific to your text:

To Install TestGen®:

Windows Users: Click on the Reference Tab in Connect Hosted by ALEKS. Locate the Computerized Testing section of the page. Click on the file named, "**WINDOWS TESTGEN® FILE**" and save it to your desktop. Then extract the EXE from the zip file that was installed on your computer. Double-click the extracted file to run and install TestGen® to your computer.

Mac Users: Click on the Reference Tab in Connect Hosted by ALEKS. Locate the Computerized Testing section of the page. Click the file named, "**MAC TESTGEN® FILE**" and save it to your desktop. Then double-click the file that was downloaded to your computer to unzip it. Once unzipped, double-click the **.dmg** file to mount the disk image onto your desktop. Double-click the "TestGen® for Mac OSX" icon and follow the instructions as they appear.

TestGen® System Requirements

Windows

- Microsoft® Windows XP, Windows Vista, Windows 7, Windows 8 (32 bit and 64 bit).
- 16 MB (recommended) or 128 MB of available RAM and sufficient hard drive space to store the TestGen® program and question bank.
- Screen resolution of 800 x 600 with 1024x 768 or higher recommended.

Macintosh

- MAC OS X 10.6, 10.7, or 10.8.
- 16 MB (recommended) or 128 MB of available RAM and sufficient hard drive space to store the TestGen® program and question bank.
- Screen resolution of 800 x 600 with 1024x 768 or higher recommended.

Help

If you need help installing TestGen®, visit <http://mpss.mhhe.com/contact.php> or call toll-free at 800-331-5094 (US Only).

Quick Reference User Guide for TestGen

1. Key Terms and Reminders

a. Testbank vs. Test

- i) Testbank – the entire collection of questions to go with a book or course. Designated by the extension .bok
- ii) Test – the exam for the student. Created from the testbank. Designated by the extension .tst

b. Question Types

- i) Multiple Choice – can have one or more correct answers
- ii) True-False
- iii) Short Answer – has less than 20 characters in the correct response
- iv) Essay
- v) Matching
- vi) Bimodal – a multiple choice question that can be used either as Multiple Choice or Short Answer – the choice is up to the user.

c. Files on hard drive for autosave

- i) All data files must be on hard drive. The program autosaves and will not run data from a CD-ROM.

d. Left Pane vs. Right Pane

- i) Left pane – gives you the list of testbanks added to your library.
- ii) Right pane is where you create or edit tests and testbanks.


2. Creating a Test

a. Open a New Test

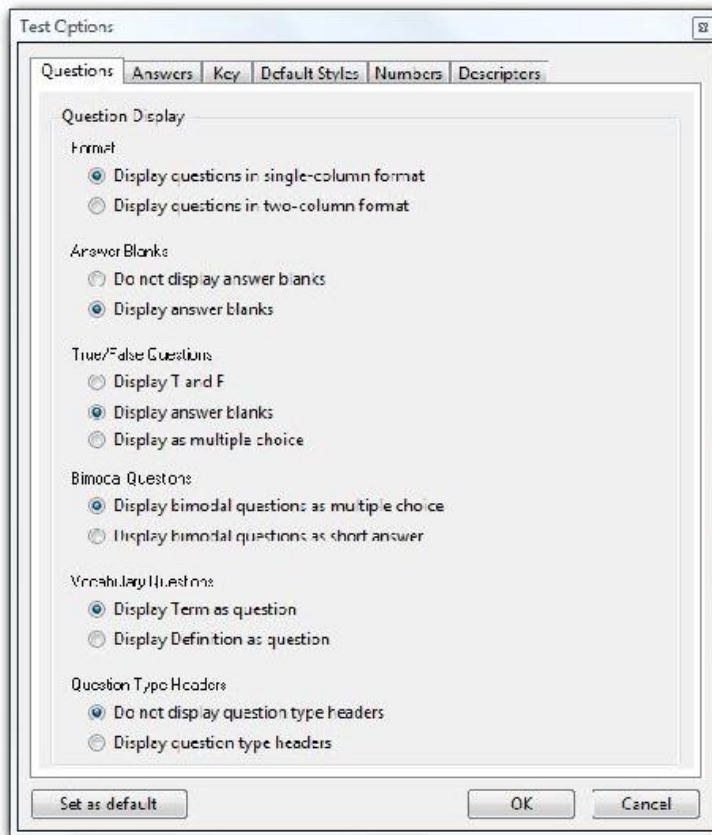
- i) Go to the File menu and choose New Test or click on the icon to the left of Paper Test or Web Test in the right pane.


b. Test options

- i) Go to the Tools menu. Select Preferences. Select Test Options.
- ii) From Test Options you can set the way the answers appear, the styles used, and the descriptors to be displayed from the various available tabs.

Note: Be careful to not check the correct answer descriptor when printing a test for students as the correct answer will then be displayed next to each question. Correct answers are marked with a green circle with a checkmark inside. These will not show up on the printed test .

- iii) TestGen supplies a generic question type header (instructions for a given set of questions in like format) for each of the six main question types: multiple choice, true/false, short answer, essay, matching, and vocabulary. They are most useful when a test is sorted by question type. Depending on your application of the question types, you may want to edit or not display the generic headers.
- iv) To modify the wording of any of the question type headers, select "Question Type Headers" from the Tools menu. If question type headers are already displayed on the test, you can also doubleclick any of the headers to open the Edit Question Type Headings dialog.

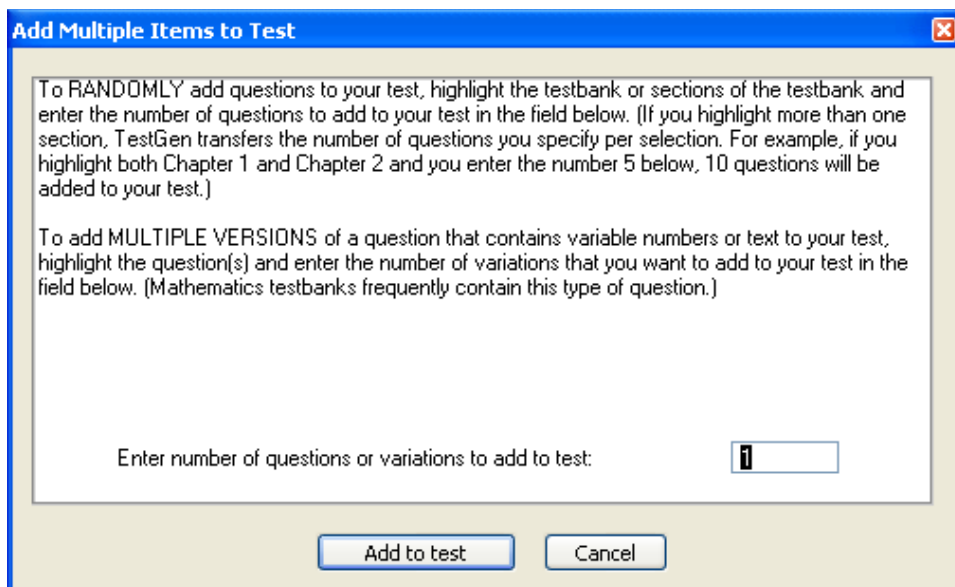


- v) To turn the question type headers on or off, go to the Questions tab and select "Do not display questions type headers" or "Display question type headers". If you want your selection to apply to both your current test and to all the tests you create in the future, be sure to press the "Set as default" button at the bottom of the Test Options dialog box before hitting 'OK'.
 - vi) Save your test by going to the File menu, choose Save Test As and save with a name and location as you would any other data file.
- c. To add individual questions to an open test file**
- i) Use the expand button  by the testbank name in the left window to show list of chapters.

- ii) Expand the chapter of your choice.
- iii) Select a question, hold down on the left mouse button and drag the question over to the test.
- iv) You can use the CTRL key to select multiple questions at once.
- v) You can also drag over an entire chapter or other section heading, at once – do not expand the heading, just drag the heading name over onto the test.

d. To add questions randomly to an open test

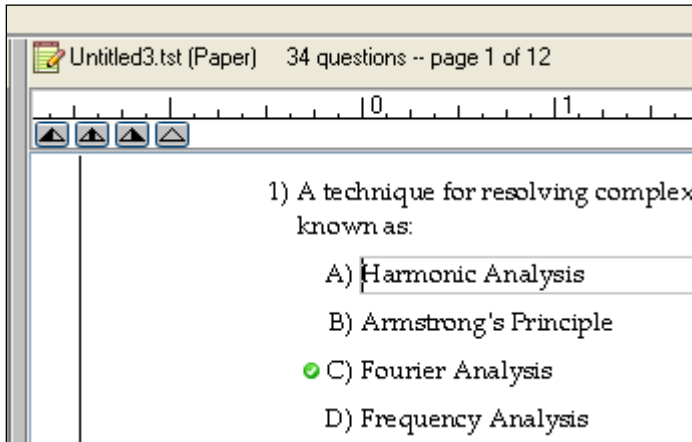
- i) Select the chapters from which you want to have questions. You can select multiple chapters by holding down the CTRL or SHIFT key.
- ii) Click on the Choose Multiple button at the bottom of the left window.
- iii) A dialog screen will appear asking for a number of questions. The program will pull the same number of questions from each chapter.



- iv) Click Add to test and the questions will be transferred.

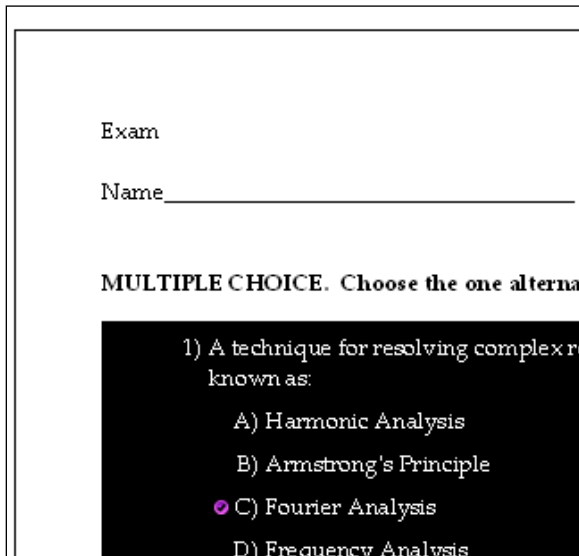
e. Editing existing questions

- i) To edit a question, click on the text. A box becomes visible around the question. You can edit just as you would in a word processing program. The same applies for any answer choice.

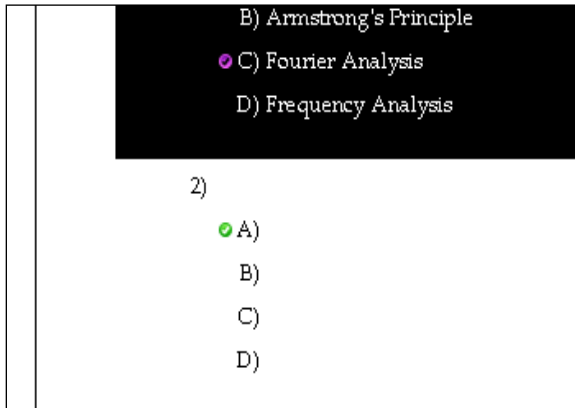


f. Adding new questions to the test

- i) To add a question, select the question after which you wish to add a new question (left click the item number so that the entire question is highlighted).



- ii) From the Insert menu choose Question. Then choose the question type. A blank question will appear. Select the box for the question or the answer and type in the text just as you would in a word processor.




iii) Additional answer choices can be added to a multiple choice question by highlighting the entire question. Go to the Insert menu and choose Blank Answer Choice.


g. Deleting questions

i) To delete a question, select the question, right click and choose delete. This is a permanent function – the program autosaves. If you want to undo a deletion, you must undo before performing other actions.

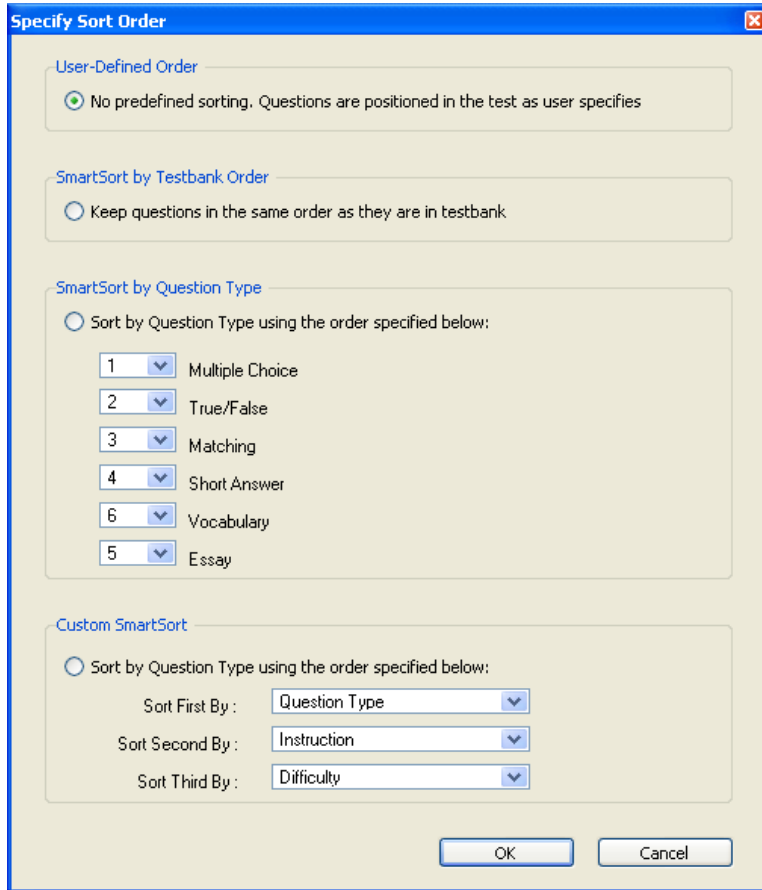
h. Organize the questions in the test

i) You can scramble the order of questions and/or answer choices by clicking on the ‘scramble’ icon on the toolbar .

ii) Click on this option and select either Scramble All Questions (this keeps answer choices in the same order within a question) or Scramble All Questions and All Answer Choices. This scrambles the questions and then scrambles the answer choices within each question.

iii) You can organize the items on a test in various ways by clicking on the ‘sort’ icon on the toolbar .

iv) You can sort by type or by descriptor – sorting by descriptor only works if that descriptor is available in the testbank.



The dialog box titled "Specify Sort Order" has a blue title bar with a close button. It contains three main sections:

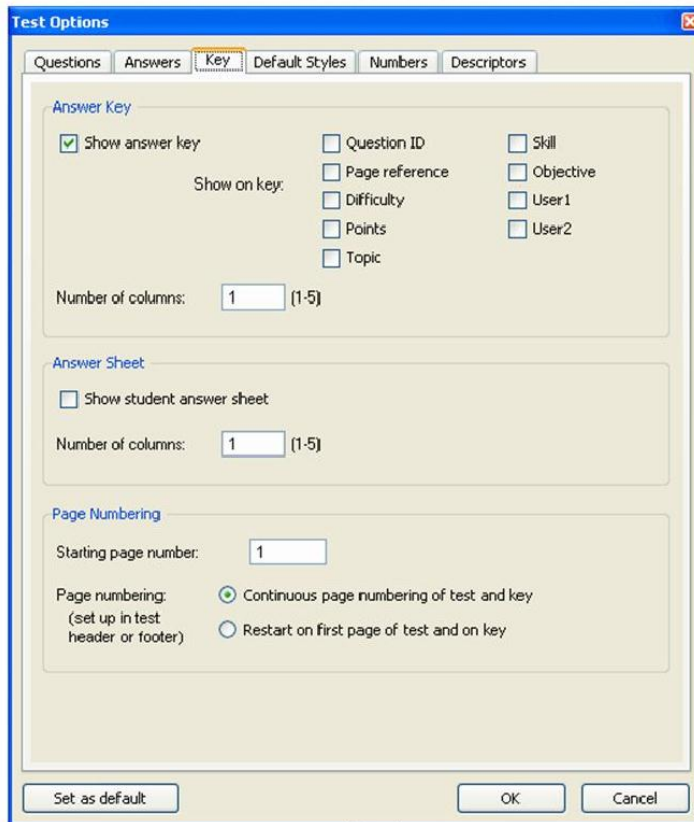
- User-Defined Order:** A radio button is selected for "No predefined sorting. Questions are positioned in the test as user specifies".
- SmartSort by Testbank Order:** A radio button is selected for "Keep questions in the same order as they are in testbank".
- SmartSort by Question Type:** A radio button is selected for "Sort by Question Type using the order specified below:". Below this are six dropdown menus:
 - 1 Multiple Choice
 - 2 True/False
 - 3 Matching
 - 4 Short Answer
 - 6 Vocabulary
 - 5 Essay
- Custom SmartSort:** A radio button is selected for "Sort by Question Type using the order specified below:". Below this are three dropdown menus:
 - Sort First By: Question Type
 - Sort Second By: Instruction
 - Sort Third By: Difficulty

At the bottom right are "OK" and "Cancel" buttons.

3. Printing a Test

a. Answer key

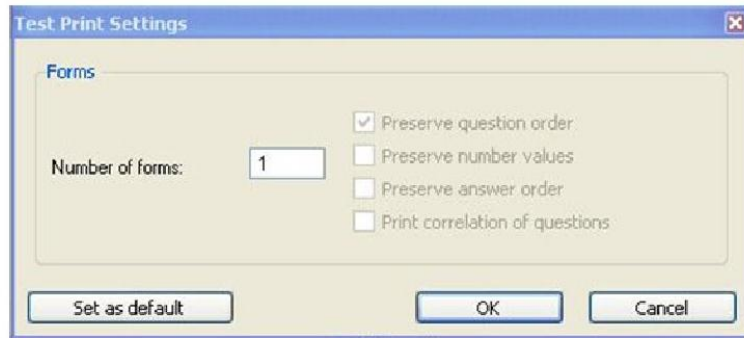
- i) To print an answer key go to the Tools menu. Select Preferences. Select Test Options and click on the Key tab. An answer key will print on a separate page after the last page of the test if the "Show answer key" box appearing on the Key tab is checked.
- ii) Check the desired boxes on the Key tab to display the additional information you would like to see on the answer key.
- iii) Be sure to enter the number of columns (1-5) you would like on the answer key. Multiple columns work best when the test contains all or mostly multiple choice or true/false. If the answers are wider than the space allowed by the column the answers will wrap within the column.
- iv) Various descriptors can also be selected to print on the answer key from the Descriptors tab. Those descriptors that are unavailable for the test items you have chosen will be grayed out.



The screenshot shows the 'Test Options' dialog box with the 'Key' tab selected. The dialog is divided into three main sections: 'Answer Key', 'Answer Sheet', and 'Page Numbering'. In the 'Answer Key' section, 'Show answer key' is checked, and 'Number of columns' is set to 1. There are several checkboxes for 'Show on key' including Question ID, Skill, Page reference, Objective, Difficulty, User1, Points, User2, and Topic. The 'Answer Sheet' section has 'Show student answer sheet' unchecked and 'Number of columns' set to 1. The 'Page Numbering' section has 'Starting page number' set to 1 and 'Page numbering' set to 'Continuous page numbering of test and key'. At the bottom, there are buttons for 'Set as default', 'OK', and 'Cancel'.

b. Test print settings

- i) To control how multiple forms of the test are presented, make sure the test window is active and then select “Print” from the File menu to display the Test Print Settings dialog.
- ii) You can use the Test Print Settings dialog to print up to 25 different forms or versions of the same test. Each printed version of a test is distinguished by a unique letter that is printed as part of the page number (A,B,C...).
- iii) After the initial test form ‘A’, the question order will be scrambled unless you choose otherwise.
- iv) You can print a correlation guide for question used on the test. This gives the testbank question number and the corresponding question number for each form of the test.



c. Reference copy of a test

- i) To print a reference copy of a test to use when reviewing the test with students, display the answers and descriptors, such as answer rationales, on the test. You can display the desired information by choosing Preferences > Test Options on the Tools menu and selecting the Descriptors tab. Mark the boxes for Correct Answer and Explanation. Also, on the Key tab, uncheck "Show answer key" and click OK. Then print the reference copy of the test.

4. Exporting Tests to Text, RTF and PDF files

Tests can be exported to various formats by making the appropriate selection from the 'Export Test' menu.

a. Exporting to Plain Text Files

- i) You can open plain text files with most word processors. Whenever you export a file as a plain text file, it loses all formatting such as bold, underlining, italics, variable text or numbers, and graphics.

b. Exporting Tests to Formatted Text Files

- i) Use the formatted text file option to export to an .rtf file that you can open with Microsoft Word®.
- ii) A test exported to a Formatted Text File produces an rtf, or "rich text," file that preserves TestGen's styles such as bold, italics, underline, superscripts, subscripts, color, indents, and strikeouts, with the exception of overlines, all lowercase, and boxed styles. See TestGen's help files for more detailed instructions.

c. Exporting Tests to Easy Edit Text Files

- i) A test exported to an Easy Edit Text File produces an rtf, or "rich text," file that is similar to the layout of a Formatted Text File, but does not have all the column and section breaks. It is easier to make more extensive changes without causing the rest of the page to shift out of alignment. Easy Edit Text files can be opened with most word processors for further editing.

d. Exporting Tests to PDF Files

i) You can export any TestGen test to a single PDF file that can be viewed on Windows or Macintosh computers using Adobe Acrobat Reader 6.0 or later. When you have a test open, select "Export" from the File menu, select PDF, and click OK. When the file dialog appears, name the file and save it in the location of your choice. To view the file, double-click it or open it from Acrobat Reader.

e. Alternative for Exporting Tests to PDF Files for Macintosh

i) The Macintosh operating system has built-in support for saving documents in PDF format. With a test open, select "Print" from the TestGen File menu. Then click the Save as PDF... button. Enter a filename and click OK. This method works for testbanks and any other document that you can print.

Note: Getting Acrobat Reader - If you do not have a copy of Adobe Reader or need to update to a newer version, go to the Adobe web site (get.adobe.com/reader/) and follow the links to download the free software.

5. Exporting Tests to Blackboard

a. Exporting Tests for Blackboard

- i) Follow these steps to create a test in TestGen and transfer it into Blackboard 6.x-9.x.
- ii) On TestGen's Startup screen, click Web Test. Then choose the option for Blackboard and click OK. Create the test, whether choosing questions from a testbank or adding your own questions.
- iii) Select "Export" from the File menu, then select the option for Blackboard from the Export Test dialog, and click OK.
- iv) Enter a name for the question pool (description is optional), then click OK. Review the filename and destination where the .zip file will be created and saved. (By default, the name matches its original .TST file and the location is the "tests" folder inside the TestGen folder.) You can change either of these, but note that you will need to locate this file for the upload process into Blackboard. Click Save.

b. Upload the Test into Blackboard

- i) Log into your Blackboard server. Click on the Courses tab in the top navigation bar. Click the course name that you would like to upload your test questions into. Click the Control Panel button in the left navigation bar. Click Pool Manager in the Assessment area or Pools in the Tests, Surveys, and Pools area. This is the area that your tests will be imported into. Having existing questions in this area will not affect the import. Click the Import Pool button on the Pool Manager page.
- ii) Locate the .zip file to upload by clicking the Browse button. (Tip: It may be in the "tests" folder inside the TestGen folder.) Then click Open. The .zip file name and location display in the box next to the Browse button. Click the Submit button. Depending on the number of questions being imported, it may take several minutes for

the entire question pool import to be transferred into your Blackboard course. A message displays when the process is complete.

c. Create Assessment in Blackboard

- i) The question pool you authored in TestGen can now be used in the same manner as question pools created directly within the Blackboard course.

6. Exporting Tests for Desire2Learn

Follow these steps to create a test in TestGen and transfer it into the Desire2Learn learning management system (LMS) as a quiz.

a. Choose the Desire2Learn Test Type and Create a Test

- i) Select "New test" from the File menu. On the Startup screen, click Web Test. Then choose the Desire2Learn option and click OK.
- ii) Create the test, whether choosing from a testbank or adding your own questions.

b. Export the Test from TestGen as a .Zip File

- i) Select "Export" from the File menu, select the Desire2Learn option from the drop-down menu, and click OK.
- ii) Save the test export file as a zip file. Review the filename and destination where the .zip file will be saved. (By default, the name matches its original .TST file and the location is the TestGen "Tests" folder.) You can change the destination, if desired, but note that you will later need to locate the file during the import process into Desire2Learn.

c. Import the Test into Desire2Learn

- i) Log in on your Desire2Learn LMS and navigate to your course.
- ii) Select "Edit." Then select "Import/Export/Copy Components."
- iii) Choose "Import Components" and locate the .zip file that you exported from TestGen.
- iv) Click "Start" and follow the instructions on the screen. The questions will import as a Quiz.

7. Exporting Tests for Moodle

Follow these steps to create a test in TestGen and transfer it into the Moodle learning management system (LMS) as a question bank.

a. Choose the Moodle Test Type and Create a Test

- i) Select "New test" from the File menu. On the Startup screen, click Web Test. Then choose the Moodle option and click OK.
- ii) Create the test, whether choosing from a testbank or adding your own questions.

b. Export the Test from TestGen as an .XML File

- i) Select "Export" from the File menu, select the Moodle option from the drop-down menu, and click OK.
- ii) Save the test export file as an .xml file. Review the filename and destination where the .xml file will be saved. (By default, the name matches its original .TST file and the saved location is the TestGen "Tests" folder.) You can change the destination, if desired, but note that you will later need to locate the file during the import process into Moodle.

c. Import the Test into Moodle

- i) Log in on your Moodle system and navigate to your course.
- ii) Under "Course Administration" choose "Question Bank" and then choose "Import."
- iii) On the Import page, select "Moodle XML format" and locate the .xml file you exported from TestGen.
- iv) The test will be imported into the Question Bank with a category name that is the same as the test name.
- v) Finally, create a quiz from the imported test items in the Question Bank.

8. Exporting Tests for Sakai

Follow these steps to create a test in TestGen and transfer it into the Sakai learning management system (LMS) as an assessment.

a. Choose the Sakai Test Type and Create a Test

- i) Select "New test" from the File menu. On the Startup screen, click Web Test. Then choose the Sakai option and click OK.
- ii) Create the test, whether choosing from a testbank or adding your own questions.

b. Export the Test from TestGen as a .Zip File

- i) Select "Export" from the File menu, select the Sakai option from the drop-down menu, and click OK.
- ii) Save the test export file as a zip file. Review the filename and destination where the .zip file will be saved. (By default, the name matches its original .TST file and the saved location is the TestGen "Tests" folder.) You can change the destination, if desired, but note that you will later need to locate the file during the import process into Sakai.

c. Import the Test into Sakai

- i) Log in on your Sakai LMs and navigate to your course.
- ii) Select the "Test and Quizzes" option.
- iii) Select "Import."
- iv) Click "Choose File" and locate the .zip file for the test you exported.
- v) Select "Export from this (or other Sakai) system" (should be the default)
- vi) Click "Import" to import the test questions as an assessment in Sakai.

9. Math Tools, Graphs and Function Plots

a. **Math symbols, fractions, and other computational items.**

i) Make sure the equation tool bar is visible. Go to View, then Toolbars, and select Equation Toolbar.



ii) The leftmost group of Toolbar icons allow the insertion of special symbols. The rightmost group of icons allow the insertion of templates.

ii) Left click one of the tool bar icons and then left click one of the icons in the pop up palette. Either the symbol will be inserted or, in the case of templates, boxes will appear for adding numbers/values.

b. **Figures can be added to test questions or answers.**

i) Save the figure on your hard drive

ii) In the appropriate question or answer, choose Insert, then Picture. Find and open the file and the image will appear in the question. You can also drag the graphic file onto the desired field and it will be inserted at the last cursor position.

iii) Graphics can be placed as a text character or as a transparent graphic. If placed as a text character it will move based on tabs, returns, and other objects just like a large text character. If placed as a transparent graphic then text and graphics can be layered over the graphic.

c. **Function plots can be added to test questions or answers.**

i) Go to Insert, then graph, and select Cartesian, Polar, or Number Line.

ii) In the pop up window, use the format button to set the details of axes and grid. Use the graph button to add the functions to plot. You can resize the graph by changing the window dimensions or by double clicking the graph.

iii) Use the place button to put the function plot into the test. It can be reopened for editing by double clicking the function plot in the test.