



Hawai'i

Statewide Assessment Program



Online Testing System

Braille Requirements and Testing Manual

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Section I. Introduction to the Manual

This manual provides information about supported hardware and software requirements for Braille testing and instructions for configuring JAWS. Information about navigating a test with JAWS is also included.






Organization of the Manual

Below is a brief description of each section in this manual, as well as common symbols and elements used throughout the document.

- [Overview of Braille Testing](#) provides an introduction to testing with Braille.
- [Technology Requirements](#) outlines the supported operating systems and hardware and software requirements for students and Test Administrators (TAs).
- [Configuring JAWS for Online Testing](#) provides instructions for ensuring that JAWS works with the secure browser.
- [Configuring Printing Software on TA Computers](#) includes information about configuring BRF and PRN file types.
- [Administering Braille Tests](#) describes the test administration workflow and explains how to print test content.
- [Navigating the Test with JAWS](#) provides an overview of JAWS keyboard commands for use in online tests, as well as instructions for signing in and responding to questions.

Document Conventions

Table 1. Key Symbols

Element	Description
	Alert: This symbol accompanies important information regarding a task that may cause minor errors.
	Note: This symbol accompanies additional information that may be of interest.
	Policy: This symbol accompanies information that is based on policy set by the Hawai'i Department of Education.
	Tip: This symbol accompanies useful suggestions.
	Warning: This symbol accompanies important information regarding actions that may cause fatal errors.

Intended Audience

This manual is intended for multiple audiences. [Table 2](#) explains which sections of the manual apply to each audience type. Some sections apply to multiple audiences.

Table 2. Manual Audiences and Relevant Sections

Audience Type	Applicable Sections
Technology Coordinator	<ul style="list-style-type: none"> • Overview of Braille Testing • Technology Requirements • Configuring JAWS for Online Testing • Configuring Printing Software on TA Computers
Test Administrator	<ul style="list-style-type: none"> • Overview of Braille Testing • Technology Requirements • Administering Braille Tests
Student (with a Braille accommodation)	<ul style="list-style-type: none"> • Navigating the Test with JAWS

Technology Coordinators should be familiar with installing and configuring settings for hardware and software used with Braille testing. They should be familiar with locating files via a file manager and editing text files.

Test Administrators should be familiar with using a web browser to retrieve data and fill out web forms. They should also be familiar with printing documents and adjusting computer audio settings.

Students should be familiar with using screen readers and Refreshable Braille Displays (RBDs) to navigate web pages.

Additional Resources

For information about supported operating systems and browsers, see the *System Requirements* document.

For information about installing and using the secure browser, see the *Secure Browser Installation Manual*.

For information about administering online tests, see the *Guide to Navigating Online HSAP Administrations*.

For information about network and internet requirements and general peripheral and software requirements, see the *Technical Specifications Manual for Online Testing*.

For information about policies and procedures that govern secure and valid test administration, see the *Test Administration Manual*.

These documents are available on the HSAP Portal (alohahsap.org).

Section II. Overview of Braille Testing

Students with a Braille accommodation receive online tests in an accessible format via the Online Testing System's streamlined mode (see [Figure 1](#)). The streamlined mode facilitates supported screen reading software and printing to Braille embossers.

About Streamlined Mode

When a student's test language is set to Braille, the test appears in streamlined mode by default. This layout organizes the test content vertically. Stimuli appear at the top of the page, and questions appear below.

Figure 1. Sample Streamlined Layout

Questions: 4-6 High School Reading (0 out of 20) Last, First (SSID: GUEST)

Back Next Pause Zoom In Zoom Out

NATURE'S CLEAN-UP CREW

Soldiers with squirt guns? Kings and queens that live for years? Welcome to the secret world of members of nature's clean-up crew, termites.

Did you ever see one of these tiny white "ants"? Look again—that's no ant. In fact, it's not even a close cousin of ants. It's a termite, and its closest cousins are cockroaches.

There are 2200 different species of termites. And they're found just about everywhere, except in very cold places. All of them are...
(passage truncated in example to show flow)

4

The figures in the passage are each made of 2-inch squares. What are their perimeters?

A 6 inches and 7 inches

B 14 inches and 28 inches

C 28 inches and 32 inches

D Both are 28 inches.

5

In the accompanying passage, what did Sally think of the new ride at the amusement park?

A It was not very original.

About Tests and Braille

The content of a test determines whether passages and questions are delivered to a Braille embosser or to a Refreshable Braille Display (RBD) via JAWS.

- **English Language Arts (ELA):** These tests present students with questions in either contracted or uncontracted literary Braille:
 - Questions containing only text are sent to an RBD.
 - Questions containing text and images that an RBD cannot read are sent to a Braille embosser.



Alert: If a student is using a screen reader other than JAWS 16, then TAs must mute the student's computer before administering an ELA test.

- **Mathematics:** All test content is delivered in Nemeth Braille via a Braille embosser.
- **Science:** All test content is delivered in Nemeth Braille via a Braille embosser.
- **U.S. History:** These tests present students with questions in either contracted or uncontracted literary Braille:
 - Questions containing only text are sent to an RBD.
 - Questions containing text and images that an RBD cannot read are sent to a Braille embosser.



Alert: If a student is using a screen reader other than JAWS 16, then TAs must mute the student's computer before administering an ELA test.

Section III. Technology Requirements

The technology requirements in this section are specific to online testing with Braille. For more information about requirements for online testing, refer to the *System Requirements* document.

Supported Operating Systems and Related Requirements

The following must be installed on computers used for Braille testing.

	Requirements for Student Computers	Requirements for TA Computers
Operating Systems*	<ul style="list-style-type: none"> Windows 7, 8.0, 8.1, 10 	<ul style="list-style-type: none"> Vista, 7, 8.0, 8.1, 10
Hardware	<ul style="list-style-type: none"> Refreshable Braille Display (RBD): AIR recommends an RBD that has a minimum of 40 cells, such as the ALVA USB 640 40-cell Braille display. 	<ul style="list-style-type: none"> ViewPlus Tiger Max Embosser
Software	<ul style="list-style-type: none"> Windows Secure Brower 8.0 JAWS Screen Reader 16 or 17 	<ul style="list-style-type: none"> Supported web browser Duxbury Braille Translator 11.1, 11.2, or 11.3 ViewPlus Desktop Embosser driver (for ViewPlus Tiger Max Embosser)

*For security purposes, tablets are not supported for Braille testing.

Software Resources

This section provides resources for downloading software required for Braille testing.

Software for Students

- Windows Secure Browser:

Students use the same Windows secure browser that is used for all online testing. For secure browser installation instructions, refer to the *Secure Browser Installation Manual*.

- JAWS Screen Reader:

For information about JAWS, go to <http://www.freedomscientific.com/products/fs/jaws-product-page.asp>.

Software for Test Administrators

- Duxbury Braille Translator:

This software allows printing of questions and stimuli that do not contain images. You can download the DBT software at http://www.duxburysystems.com/dbt_main.asp.

- ViewPlus Desktop Embosser Driver:

The driver includes the Tiger Viewer software, which allows printing of questions and stimuli that contain tactile or spatial components (such as images). You can download the driver at <http://downloads.viewplus.com/drivers/desktop-braille-embosser/>.

Section IV. Configuring JAWS for Online Testing

You must configure JAWS before students use it for online testing. This section contains instructions for the following:

- [Configuring JAWS to Recognize the Secure Browser](#)
- [Applying Settings for Contracted or Uncontracted Braille](#)
- [Configuring JAWS to Speak “Dollars”](#)
- [Optional JAWS Voice Adjustment Settings](#)

Configuring JAWS to Recognize the Secure Browser

For JAWS versions 16 and 17, you must edit the configuration file so that the software recognizes the secure browser.



Note: The examples and screenshots below are for JAWS 17 installed to the default location. If your version is installed to a different location, navigate to the appropriate directory.

To modify the configuration file:

1. Open the JAWS ConfigNames.ini file. This file may appear in two folders. Depending on how JAWS is installed on your computer, both files may need to be modified:
 - Required: Start > All Programs > JAWS 17.0 > Explore JAWS > Explore Shared Settings
 - Optional: Start > All Programs > JAWS 17.0 > Explore JAWS > Explore My Settings
2. In the ConfigNames.ini file, locate the line of text containing `firefox:3=firefox`. At the end of this line, press **Enter** and type `HISecureBrowser=Firefox`
3. Save the file.



Note: If you receive an error that you do not have permission to save the .ini file to this location, save the file to your desktop as `ConfigNames.ini`. After saving the updated .ini file, copy it to the folder containing the original .ini file (referenced in step 1). Confirm that you want to replace the original file with the file you created.

Applying Settings for Contracted or Uncontracted Braille

In order for students to use contracted or uncontracted Literary Braille with their RBD, the correct JAWS settings must be applied prior to launching the secure browser.

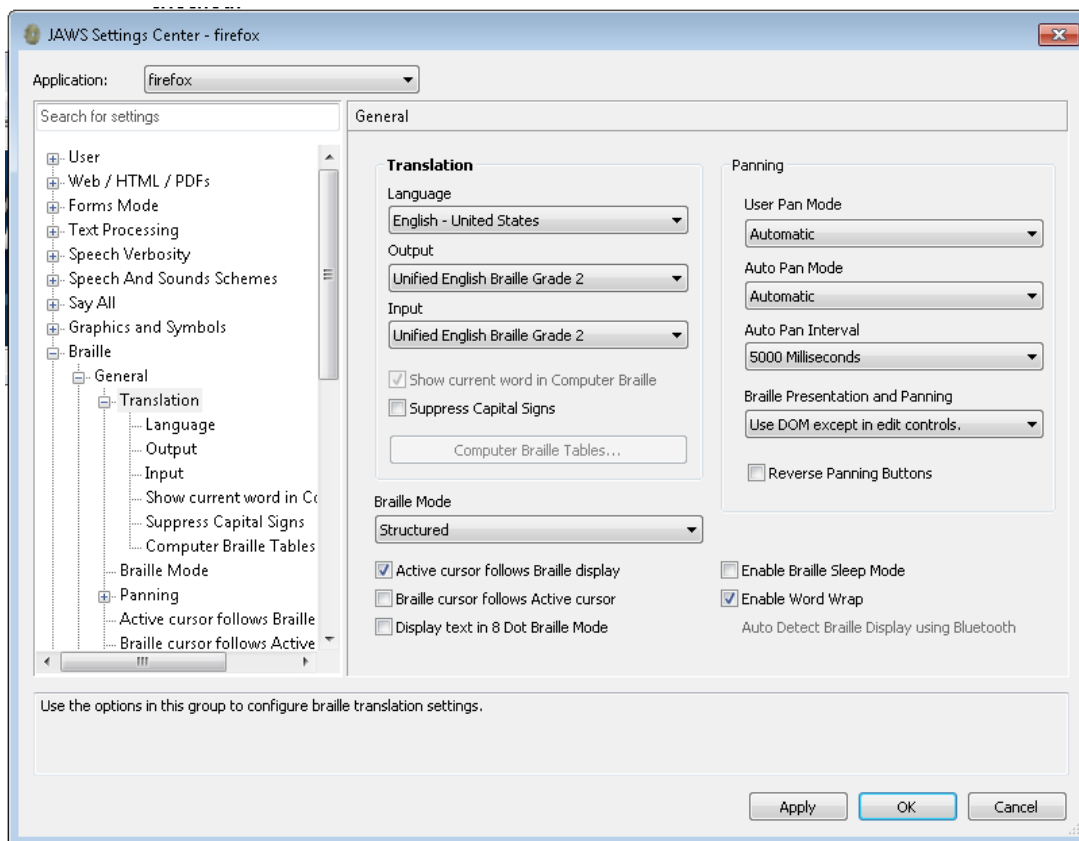
To apply the correct JAWS settings:

1. Open JAWS and go to **Utilities > Settings Center**. The **Settings Center** window opens.
2. From the **Application** drop-down list at the top of the window, select **firefox**.

3. Do one of the following:

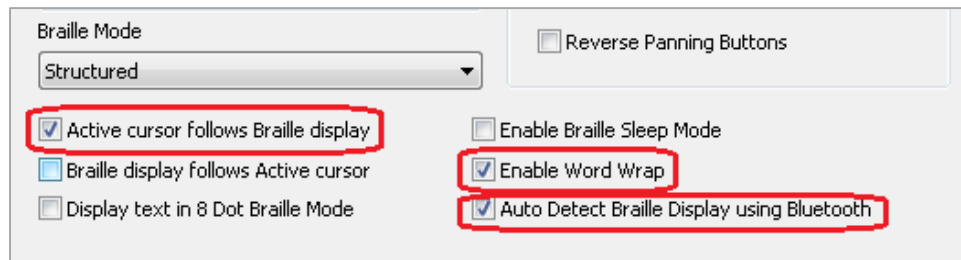
- If you are using JAWS 16, expand the *Braille* settings, *General* sub-settings, and *Translation* sub-settings in the *Search for settings* panel on the left. Click **Contracted Braille Translation**. The **Settings Center** window displays the options for Contracted Braille Translation.
 - i. In the *Translation* section, select the required option from the **Contracted Braille Translation** drop-down list.
 - ii. For a student who prefers contracted Braille, select **Input and Output**.
 - iii. For a student who prefers uncontracted Braille, select **Off**.
- If you are using JAWS 17, expand the *Braille* settings, *General* sub-settings, and *Translation* sub-settings in the *Search for settings* panel on the left. The **Settings Center** window displays the options for Braille Translation (see [Figure 2](#)).
 - iv. In the *Translation* section, verify the **Language** drop-down list is set to **English – United States**. For a student who prefers contracted Braille, select **Unified English Braille Grade 2** from the **Output** and **Input** drop-down lists. For a student who prefers uncontracted Braille, select **Unified English Braille Grade 1** from the **Output** drop-down list.

Figure 2. JAWS Settings Center Window



4. In the *Braille Mode* section (see [Figure 3](#)), ensure that only the following three settings are checked:
 - Active cursor follows Braille display
 - Enable Word Wrap
 - Auto Detect Braille Display using Bluetooth

Figure 3. Braille Mode Section



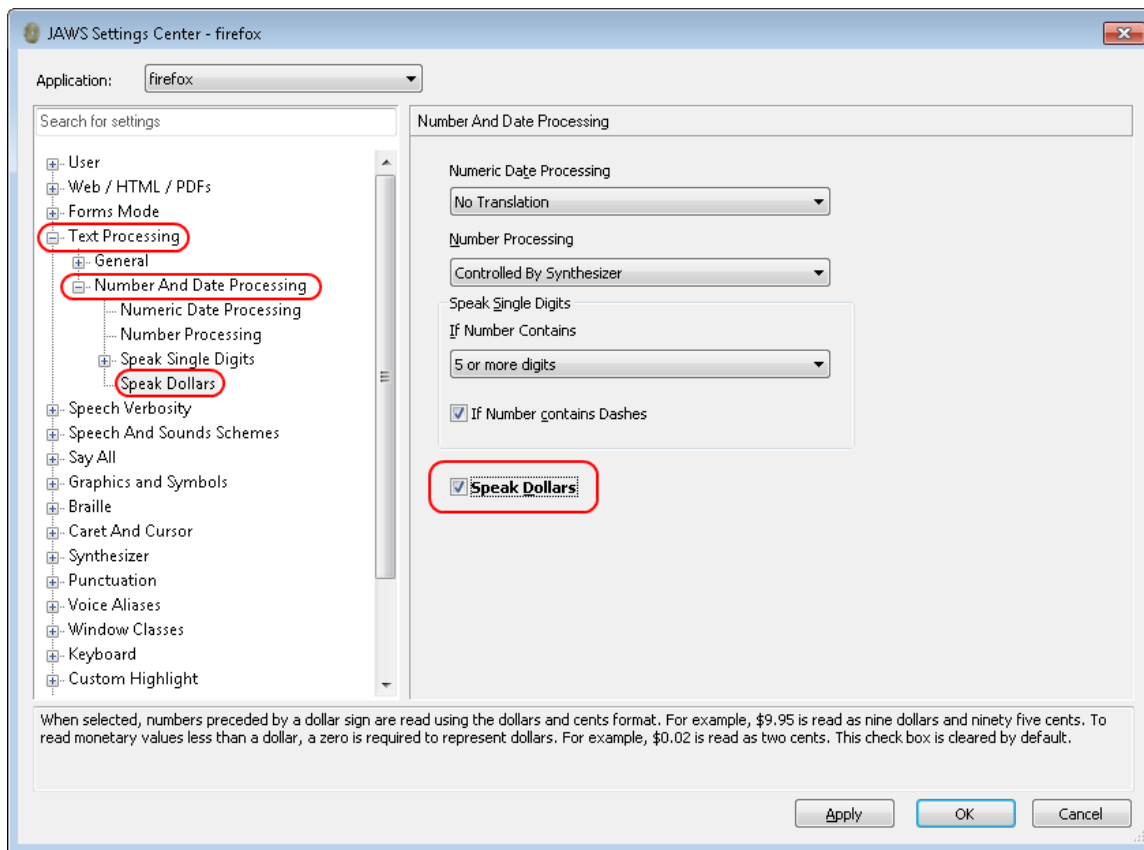
5. Click **Apply**, and then click **OK**.

Configuring JAWS to Speak “Dollars”

To ensure that JAWS correctly speaks the dollar (\$) symbol:

1. Open JAWS and go to **Utilities > Settings Center**. The **Settings Center** window opens.
2. In the *Search for settings* panel on the left, expand the *Text Processing* settings and *Number And Date Processing* sub-settings. Click **Speak Dollars**. The **Settings Center** window displays the *Number And Date Processing* options (see [Figure 4](#)).

Figure 4. Number and Date Processing



3. Mark the **Speak Dollars** checkbox.
4. Click **Apply**, and then click **OK**.

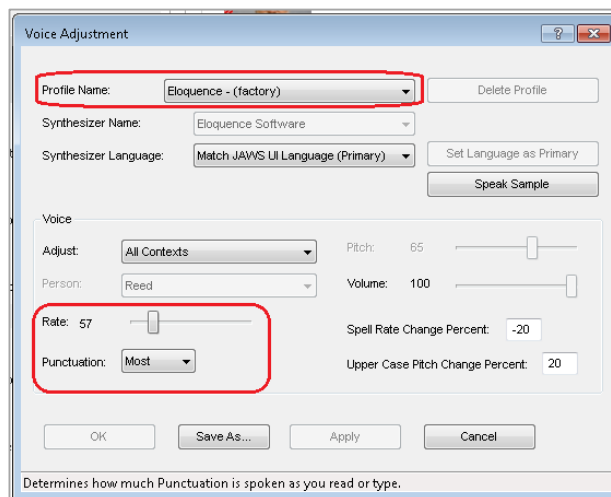
Optional JAWS Voice Adjustment Settings

Prior to launching the secure browser, you can adjust JAWS voice settings for students based on their individual needs. You must set the Voice Profile, Speaking Rate, and Punctuation settings prior to administering assessments. Students should take practice tests using JAWS so they can determine whether these settings need to be adjusted.

To adjust JAWS voice settings:

1. Open JAWS and go to **Options > Voices > Voice Adjustment**. The **Voice Adjustment** window opens (see [Figure 5](#)).
2. To adjust the voice profile, in the *Profile* section, select a voice profile from the **Name** drop-down list. Click **Apply**.
3. To adjust the voice rate, in the *Voice* section, drag the **Rate** slider to the desired rate speed (the lower the rate, the slower the words are read aloud). Click **Apply**.
4. To adjust the punctuation, click the **Punctuation** drop-down list. Select from the following options: **None**, **Some**, **Most**, or **All**. Click **Apply**.
5. When all settings are saved, click **OK**.

Figure 5. JAWS Voice Adjustment



Section V. Configuring Printing Software on TA Computers

The Online Testing System allows students to print test material with TA approval. The software that sends print requests to the Braille embosser must be installed on computers that TAs use for test sessions.

The embossed output for student print requests depends on the file type associated with a test question. There are two types of files:

- **Braille Ready File (BRF):** BRF file types are used for print requests containing only text (including formatted tables). The Duxbury Braille Translator software handles BRF files.
- **Printer Output File (PRN):** PRN file types are used for print requests containing tactile or spatial components (such as images). The ViewPlus Tiger Viewer software handles PRN files.

Upon approving a print request, the TA sends the file to the embosser using either Duxbury or ViewPlus software.

Instructions for printing files are located in the section [Administering Braille Tests](#).



Note: TAs must ensure that the Braille Type setting for the student is correct prior to approving the student for testing. The Braille Type setting determines what file type is used for student print requests.

Opening Sample BRF and PRN Files on TA Computers

This section contains instructions for opening sample BRF and PRN files with the appropriate software program and setting default printing preferences. The Duxbury Braille Translator and ViewPlus Tiger Viewer software must already be installed.

Configuring BRF Files with the Duxbury Braille Translator Software

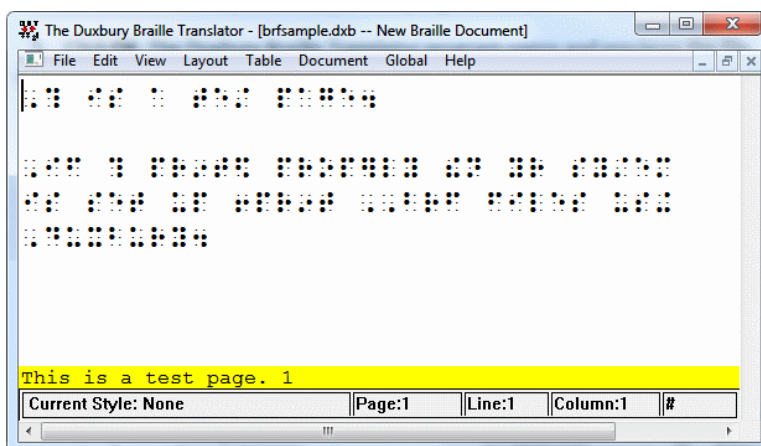
1. Navigate to the **Resources > Test Coordinators/Administrators > Test Administration** page on the alohahsap.org portal website.
2. Click **Sample BRF File**. The file dialog window opens.
3. Do one of the following:
 - From the **Open with** drop-down list, select **Duxbury Braille Translator**. Click **OK**. The Duxbury Braille Translator program opens and previews the file (see [Figure 6](#)).
 - If the Duxbury Braille Translator is not available as a selectable program, do the following (otherwise skip to step 4):
 - i. Click **Browse**. The **Choose Helper Application** window opens.

- ii. Navigate to the Duxbury folder and open it.
- iii. Open the DBT folder and select **dbtw.exe**.
- iv. In the **Open with** window, select **Duxbury Braille Translator** and mark the **Do this automatically for files like this from now on** checkbox.
- v. Click **OK**. The Duxbury Braille Translator program opens and previews the file (see [Figure 6](#)).



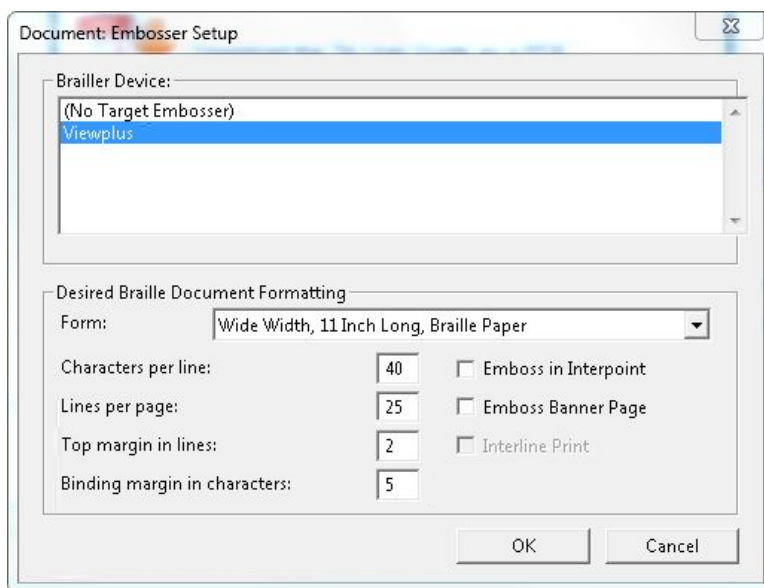
Note: If the **Import File** window appears, set the Template to either English (American) – Standard Literary Format (for Duxbury 11.2 or earlier) or English (BANA Pre-UEB) – Literary Format (for Duxbury 11.3) and set the Import Filter to Formatted Braille.

Figure 6. Duxbury Braille Translator Window



4. In the **Duxbury Braille Translator** window, go to **Global > Embosser Setup**. The **Global: Embosser Setup** window appears. To add a new embosser, do the following:
 - a. Click **New**. The **Embosser Setup – Untitled Configuration** window appears.
 - b. From the **Embosser Model** drop-down list, select the required embosser type.
 - c. From the **Send to Printer** drop-down list, select the required embosser’s name and click **OK**.
 - d. In the **Global: Embosser Setup** window, click **OK**.
5. In the **Duxbury Braille Translator** window, go to **Document > Embosser Setup**. The **Document: Embosser Setup** window opens (see [Figure 7](#)).

Figure 7. Document: Embosser Setup Window



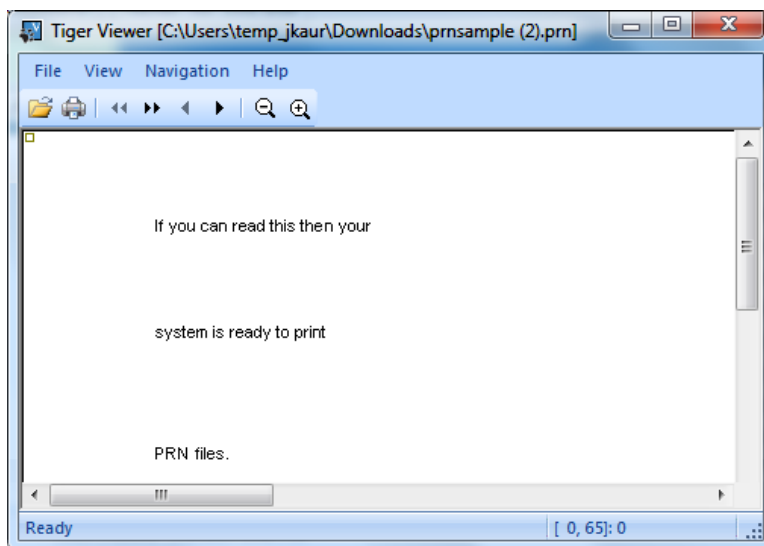
6. In the **Document: Embosser Setup** window, ensure the following are selected:
 - *Braille Device*: **ViewPlus Max** (or other ViewPlus embosser)
 - The following *Braille Document Formatting* options must be set:
 - **Emboss in Interpoint** checkbox is blank
 - Top margin in lines: 2
 - Binding margin in characters: 5
 - When you are done, click **OK**.
7. In the **Duxbury Braille Translator** window, go to **File > Emboss**. The **File: Emboss...** window opens.
8. In the **File: Emboss...** window, ensure that only one copy is being printed and that the page range is set to **All**.
9. Click **OK**.

Configuring PRN Files with the Tiger Viewer Software

1. Navigate to the **Resources > Test Coordinators/Administrators > Test Administration** page on the alohahsap.org portal website.

2. Click **Sample PRN File**. The file dialog window opens.
3. Do one of the following:
 - From the **Open with** drop-down list, select **Tiger Viewer** and click **OK**. The Tiger Viewer program opens and previews the file (see [Figure 8](#)).
 - If Tiger Viewer is not available as a selectable program, do the following (otherwise skip to step 4):
 - i. Click **Browse**. The **Choose Helper Application** window opens.
 - ii. Navigate to the ViewPlus folder and open it.
 - iii. Open the Tiger folder.
 - iv. Open the **ViewPlus Max** folder (the Tiger folder may contain several ViewPlus embosser folders) and select **TigerViewer.exe**.
 - v. In the **Open with** window, select **Tiger Viewer** and mark the **Do this automatically for files like this from now on** checkbox.
 - vi. Click **OK**. The Tiger Viewer program opens and previews the file (see [Figure 8](#)).

Figure 8. Tiger Viewer Window



4. Go to **File > Print**. The **Print** window opens.
5. Ensure that the printer is set to **ViewPlus Max** (or other supported ViewPlus embosser) and that only one copy is being printed.
6. Click **Print**.

Section VI. Administering Braille Tests

This section provides an overview for TAs testing students with a Braille accommodation. The following sections are included:

- [Creating a Test Session and Approving Print Requests](#)
- [Sending Requested BRF and PRN Files to the Embosser](#)
- [Removing Files from the Web Browser Download Archive](#)

Creating a Test Session and Approving Print Requests

This section provides the general workflow for administering online tests in the Online Testing System and approving print requests.



Note: Test Coordinators (TCs) must request the Braille accommodation for students by contacting the Assessment Section at 808-733-4100. It will then be preset for approved students by the Assessment Section. TCs cannot set this accommodation in TIDE.

For detailed instructions about online testing, see the *Guide to Navigating the Online HSAP Administrations*. For information about testing policies, see the *Test Administration Manual*.

1. TA logs in to the appropriate TA Site and starts a test session.
2. TA opens JAWS on the student testing devices.
 - a. If students are taking an ELA test and are using a screen reader other than JAWS 16 or 17, the TA must also mute the students' computers before testing begins.
3. TA opens the secure browser on the student testing devices.
4. On the appropriate testing site, students sign in to the test session and select tests.
5. TA reviews student's test settings and verifies the following:
 - *Language* is set to **Braille**.
 - *Print on Request* is set to the appropriate option for the selected test.
 - *Braille Type* is set as follows:
 - Math and Science tests: **Nemeth**
 - ELA and Social Sciences tests: **Contracted or Uncontracted**
 - *Emboss Request Type* is set to **Auto-Request** or **On-Request**, depending on the rules for the selected test.
 - All other test settings are correct.

6. TA approves students for testing.
7. Students verify their test settings and start testing.
8. If a test requires manual print requests, students send print requests to the TA.
 - If a test has auto-emboss request enabled, print requests automatically appear on the TA Live Site as students navigate the test.
9. TA reviews and approves print requests. For information about processing Braille print requests, see the section [Sending Requested BRF and PRN Files to the Embosser](#).

**Policy: Deleting Files and Discarding Test Material**

When the test session is over, you must delete and discard all test materials.

For instructions on deleting downloaded files, see the [Removing Files from the Web Browser Download Archive](#) section.

Sending Requested BRF and PRN Files to the Embosser

After approving print requests, TAs send the requested files to the embosser.

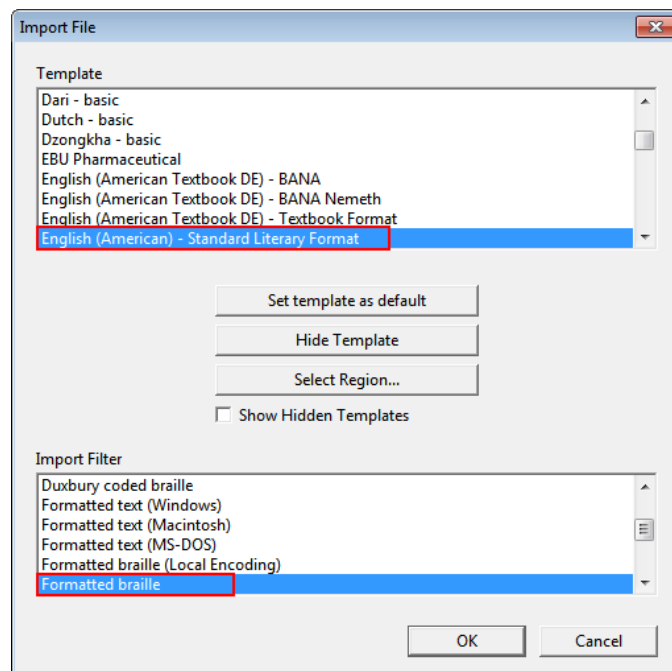


Alert: When administering tests, be sure to plug the embosser into the same USB port that was used when it was first set up for testing. Otherwise, the computer may identify the embosser as a new device and require you to set it up again.

Printing BRF Files

1. When you approve a print request that prints in BRF format, a print dialog window opens.
 - a. Select **Open with**.
 - b. In the drop-down list, select **Duxbury Braille Translator**.
 - c. Click **OK**. The **Import File** window opens (see [Figure 9](#)).

Figure 9. Import File Window



2. Ensure that the following are selected:
 - Template:
 - For Duxbury 11.2 or earlier: **English (American) – Standard Literary Format**
 - For Duxbury 11.3: **English (BANA Pre-UEB) – Literary Format**
 - Import Filter: **Formatted braille**
3. Click **OK**. The *Duxbury Braille Translator* preview window opens (see [Figure 6](#)).
4. Go to **File > Emboss**. The *File: Emboss* window opens.
5. Ensure that only one copy is being printed, the page range is set to **All**, and the Braille Device is set to **Viewplus Max** (or other ViewPlus embosser).
6. Click **OK**.

Printing PRN Files


1. When you approve a print request that prints in PRN format, a print dialog window opens.
 - a. Select **Open with**.
 - b. In the drop-down list, select **Tiger Viewer**.
 - c. Click **OK**. The *Tiger Viewer* preview window opens (see [Figure 8](#)).

2. In the **Tiger Viewer** window, go to **File > Print**. The **Print current PRN File** window opens.
3. In the **Print current PRN File** window, ensure that the printer is set to **ViewPlus Max** (or another supported ViewPlus embosser) and that only one copy is being printed.
4. Click **Print**.


Removing Files from the Web Browser Download Archive

Most supported web browsers automatically save downloaded files. If your computer saves the BRF and PRN files from print requests, you must delete all test-related files from your browser's download archive, for security purposes.

To remove files in Google Chrome:

1. Open the Chrome menu  icon in the upper-right corner.
2. Select **Downloads**. The **Downloads** page opens.
3. Remove all test-related files by doing one of the following:
 - a. For each file, click the **Remove from list** link.
 - b. Click **Clear all** in the upper-right corner. Files saved to your computer are not deleted.

To remove files in Internet Explorer:

1. Click the settings gear  icon in the upper-right corner.
2. Select **View Downloads**. The **Downloads** window opens.
3. Select each file and press **Delete** your keyboard.



Note: Depending on your download settings, you may also need to delete files from your Temporary Internet Files folder.

To remove files in Mozilla Firefox:

1. Open the **Tools** menu and select **Downloads**. The **Library** window opens.
2. Delete all test-related files by doing one of the following:
 - Select each file and press **Delete** on your keyboard.
 - Click **Clear Downloads** at the top of the window. This removes all temporary downloaded file but does not delete any files you saved to your computer.

Section VII. Navigating the Test with JAWS

This section explains how students navigate through the test using JAWS commands, including information about the following:

- [Navigating the Sign-In Pages](#)
- [Navigating Within the Test](#)
- [Responding to Questions](#)



Note: The instructions in this section provide only the keyboard commands for online testing. Students testing with an RBD that has router keys may also press the router key above the text for a particular button to move the cursor to that button. They can press the router key a second time to select that button instead of using the provided keyboard commands.

Navigating the Sign-In Pages

This section provides instructions about how students navigate the sign-in pages of the Student Testing Site. For more information about these pages, see the *Guide to Navigating Online HSAP Administrations*.

Sign-In Page:

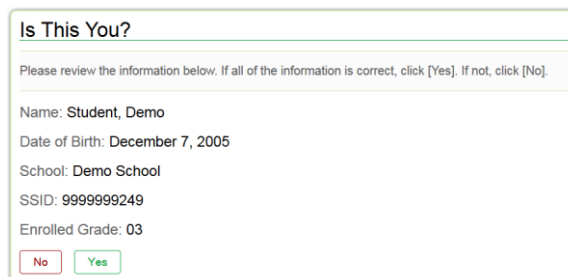
1. To navigate between the fields, press **Tab**.
2. Press **Tab** to navigate to the *First Name* field. Students enter their first name.
3. Press **Tab** to navigate to the *SSID* field. Students enter their SSID.
4. Press **Tab** to navigate to the first *Session ID* text box. Enter the first part of the Session ID.
5. Press **Tab** to navigate to the second *Session ID* text box. Enter the second part of the Session ID.
6. Press **Tab** to navigate to the third *Session ID* text box. Enter the third part of the Session ID.
7. Press **Tab** to navigate to the **Sign In** button.
8. Press **Enter**.

Figure 10. Student Sign-In page

Is This You? Page:

1. To listen to each line of text, press the **Down** arrow. JAWS reads aloud the information.
2. To move to the **No** and **Yes** buttons, press **Tab**.
3. To select the **No** or **Yes** button, press **Enter**.

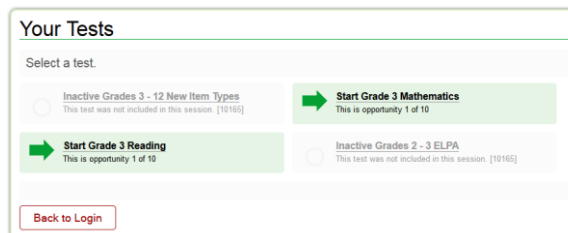
Figure 11. Is This You? Page



Your Tests Page:

1. To move to the first test listed on this page, press **Tab**.
2. To navigate between the test names, press **Tab**. The order of navigation is from left to right and top to bottom, in a zigzag pattern.
3. To start or resume a test, press **Enter**.

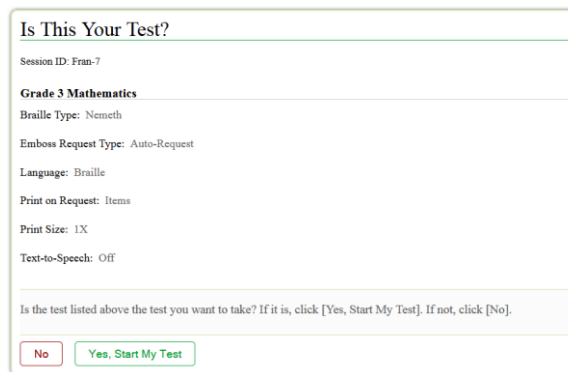
Figure 12. Your Tests Page



Is This Your Test? Page:

1. To listen to each line of text, press the **Down** arrow.
2. To move to the **No** and **Yes, Start My Test** buttons, press **Tab**.
3. To select **No** or **Yes, Start My Test**, press **Enter**.

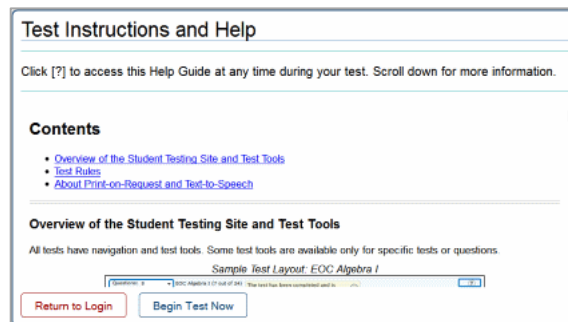
Figure 13. Is This Your Test? Page



Test Instructions and Help Page:

1. To listen to each line of text, press the **Down** arrow.
2. To move to the **Return to Login** and **Begin Test Now** buttons, press **Tab** until reaching the correct button. (Students can also press **B**.)
3. To select **Return to Login** or **Begin Test Now**, press **Enter**.

Figure 14. Test Instructions and Help Page



Navigating Within the Test

This section provides instructions about how students navigate a test page.

The first time the test loads, JAWS may start reading everything until the student stops it. However, on the next test page, the focus will be on the first question on the page.

About Test Elements

A test page has up to three primary landmark regions: the Banner region, the Navigation and Test Tools region, and the Test Content region. To navigate between these landmarks using JAWS, press **R**.

- **Banner Region:** The banner contains the test information row. This row displays the current question number(s), test name, student name, test settings button, and help button.
- **Navigation and Test Tools Region:** This region displays the navigation and tool buttons.
- **Test Content Region:** This region consists of the *Stimulus* section and the *Question* section:
 - **Stimulus Section:** This section contains the following elements:
 - Stimulus title
 - Stimulus context menu
 - Stimulus content
 - **Question Section:** Each question contains the following elements:
 - Question number
 - Question context menu
 - Question stem
 - Response area

JAWS Keyboard Commands

Students can use the following keyboard commands to navigate within a test page. Please note that this is a subset of all available JAWS commands.

Action	Keyboard Command
Navigate to the next landmark element on the page.	R
Move to the next line on the page.	Down Arrow
Move to the previous line on the page.	Up Arrow

<p>Move to the next component on the page.</p> <p>In general, the following test elements are components:</p> <p>Question number (and associated stem text)</p> <p>Question context menu</p> <p>Response options</p> <p>Navigation and tool buttons</p>	Tab
<p>Move to the previous component on the page.</p>	Shift + Tab
<p>Jump to the next heading on the page.</p> <p>In general, the following test components are defined with a heading:</p> <p>Test name (H1)</p> <p>Student name (H2)</p> <p>Passage title (H3)</p> <p>Question number (H3)</p> <p>On test pages that have multiple questions, students can jump directly from one question to the next. To do so, press H and then press the Down arrow twice. The question stem is read aloud.</p>	H
<p>Jump to the previous header on the page.</p>	Shift + H
<p>Select an option or button.</p>	Enter
<p>Read everything on the page (from your current place on the page).</p>	Insert + Down arrow
<p>Stop JAWS from reading.</p>	Ctrl or Space bar

Opening a Context Menu

The first question on a test page is automatically in focus. The instructions in this section assume the student wants to open the context menu for the in-focus landmark element on the page and has not yet used the **Tab** key to navigate anywhere.

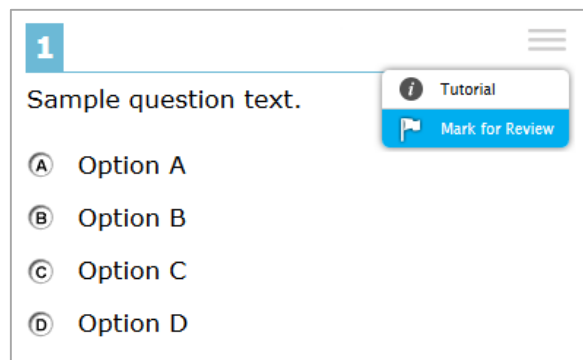
To open the context menu for a stimulus or passage:

1. Ensure the focus is on the stimulus.
2. To navigate directly to the context menu button, press **Tab** twice. JAWS reads aloud “Menu button.”
3. Press **Enter**. The context menu opens and displays the list of available menu options. JAWS reads aloud the first option in the menu.
4. To move up and down the list, press the **Up** and **Down** arrow keys. JAWS automatically reads aloud each option.
5. To select a menu option, press **Enter**.
 - a. To exit the menu without making a selection, press **Esc**. JAWS returns focus to the context menu button.

To open the context menu for a question:

1. To navigate directly to the context menu button, press **Tab** twice. JAWS reads aloud “Menu button.”
2. Press **Enter**. The context menu opens and displays the list of available menu options. JAWS reads aloud the first option in the menu.
3. To move up and down the list, press the **Up** and **Down** arrow keys. JAWS automatically reads aloud each option.
4. To select a menu option, press **Enter**.
 - a. To exit the menu without making a selection, press **Esc**. JAWS returns focus to the context menu button.

Figure 15. Question Context Menu



Responding to Questions

This section provides basic guidance for responding to question types that may appear on tests. Students should review questions via an RBD or printout from a Braille embosser before responding to questions.

Multiple-Choice

Multiple-Choice questions require you to select one response option from a group of options. The response area displays several response options as radio buttons.

1. After listening to the question text, press **Tab** twice. JAWS reads aloud the option letter and corresponding text. If the option is an image, JAWS reads the text description associated with the image.
2. To navigate between each answer option, use the **Tab** and **Shift + Tab** commands (or use the **Up** and **Down** arrow keys). JAWS reads aloud the letter and text for the option in focus.
3. To select a response option in focus as your response, press **Space**. The radio button is selected and JAWS reads "Space."

Figure 16. Multiple Choice Question

1

Sample question text.

(A) Option A

(B) Option B

(C) Option C

(D) Option D

Multi-Select

Multi-Select questions require you to select one or more response options from a group of options. The response area displays several response options as checkboxes.

1. After listening to the question text, press **Tab** twice. JAWS reads aloud the option letter and corresponding text. If the option is an image, JAWS reads the text description associated with the image.
2. To navigate between each response option, use the **Tab** and **Shift + Tab** commands. JAWS reads aloud the letter and text for the option in focus.

Figure 17. Multi-Select Question

1

Sample question text.

Multi-select option 1

Multi-select option 2

Multi-select option 3

Multi-select option 4

Multi-select option 5

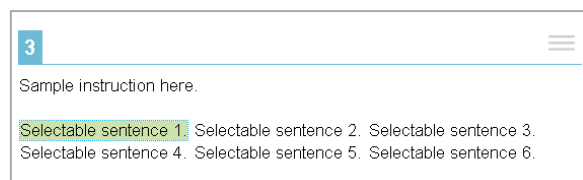
3. To select a response option in focus as your response, press **space**. A check mark appears for that answer option and JAWS reads “Space.”

Hot Text

Hot Text questions require you to select at least one word, phrase, or sentence. For these question types, it is critical to follow the instructions provided in the question. Each selectable text area is pre-defined. Selecting a phrase or sentence automatically marks all the words in that text area as selected.

1. After listening to the question text, press **Tab** twice. JAWS reads aloud the text that is in focus.
2. To navigate between each selectable text area, use the **Tab** and **Shift + Tab** commands. JAWS will read aloud the selectable text.
3. To choose a selectable text area in focus as your response, press **Enter**. JAWS announces the text is checked.

Figure 18. Hot Text Question



Edit Task

Edit Task questions require you to replace an incorrect selectable word or phrase in a reading excerpt. For these question types, it is critical to follow the instructions provided in the question. Some edit task questions require you to enter the response into a text box. Some edit task questions require you to select a response from a drop-down list. Each selectable text area is pre-defined.

Some Edit Task questions require students to make changes that are punctuation-based. For these Edit Task questions, JAWS needs to read in character mode.



Tip: AIR strongly recommends that students read through an entire Edit Task question before responding. Students can listen to the question as well as read it via an RBD or printout from an embosser.

1. Use the **Down** arrow to read through each line of text. If a line of text has a selectable word or phrase, JAWS reads “clickable” after the word or phrase.
2. Navigate to each selectable text field in the question by doing one of the following:
 - Return to the beginning of the question.
 - Press **Shift + H**.

- Press **Tab** to go to the first selectable text field.
 - Move backwards through the selectable text fields in the question.
 - Press **Shift + Tab**.
- 3. When the selectable text is in focus, press **space**. This opens the edit menu. JAWS reads “Edit tools dialog” and provides additional instructions.
 - Text box: Type in the replacement word or phrase.
 - Drop-down list: Use the **Up** and **Down** arrow keys to move between options in the list. JAWS will read aloud each option. To select an option, press **Enter**.

Figure 19. Edit Task Question

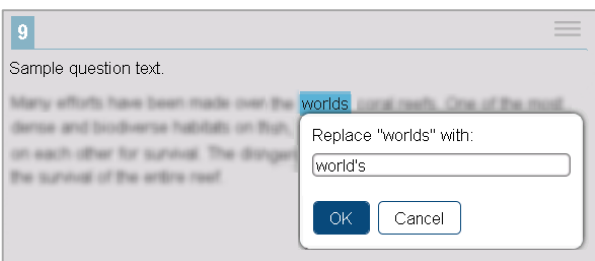
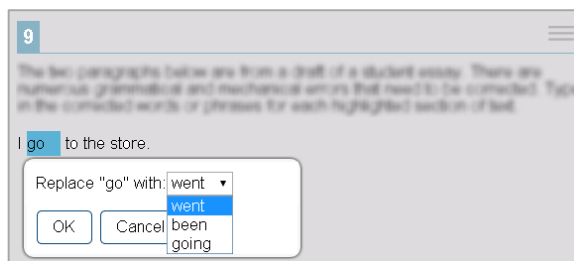


Figure 20. Edit Task with Choice Question



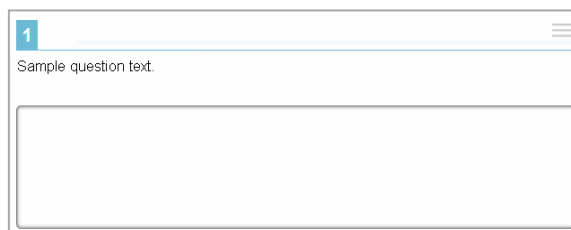
4. Press **Tab** to navigate to the **OK** button and press **Enter** to close the edit menu.

Open Response

Open Response questions require you to enter text in a text box. You may be asked to write a sentence, paragraph, or essay. Some Open Response questions include a row of text formatting buttons. However, these formatting options are not available to students testing with Braille.

1. Read the question and then use the **Tab** command to move to the text box. JAWS reads “Edit, type in text.”
2. Enter your response. When you are done, press **Tab** to navigate from the text box to the next question on the page.

Figure 21. Open Response Question



Equation

In Braille tests, Equation questions function like Open Response questions, because the on-screen Equation keypad does not support JAWS. Students testing in Braille must type their full response in a text box. The response may consist of a single numeric value or an entire equation, depending on the question.

1. Read the question and then use the **Tab** command to move to the text box. JAWS reads “Edit, type in text.”
2. Enter your response. When you are done, press **Tab** to navigate from the text box to the next question on the page.

Figure 22. Equation Question

2

Enter the quotient.

$3125 \div 25$

Table Match

Table Match questions require you to mark at least one check box in the cells of a table consisting of multiple rows and columns. The table row heading and column heading are not selectable.

1. After listening to the question text, press **Tab** twice. This takes you to the first cell containing a check box. JAWS reads aloud the column and row names for that cell.
2. To navigate to each cell that has a check box, press **Tab**. JAWS reads aloud the column name and row name for each cell.
3. To mark a check box, press **space**.

Figure 23. Table Match Question

12

Sample question text.

	Column A	Column B	Column C
Row A	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Row B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Row C	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Row D	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section VIII. Change Log

This Change Log can be used to identify specific changes that are made to any of the information included in the original document throughout the current school year.

Change	Section	Date
Added information about responding to equation questions.	Equation	11/17/2015
Updated system requirements and removed instructions for older versions of JAWS.	Technology Requirements (and throughout)	2/3/2016
Updated instructions for JAWS 17 and Duxbury 11.3	Throughout	5/10/2016