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|  | Item Types and Accessibility Features (Preliminary) Updated 29 June 2016 |

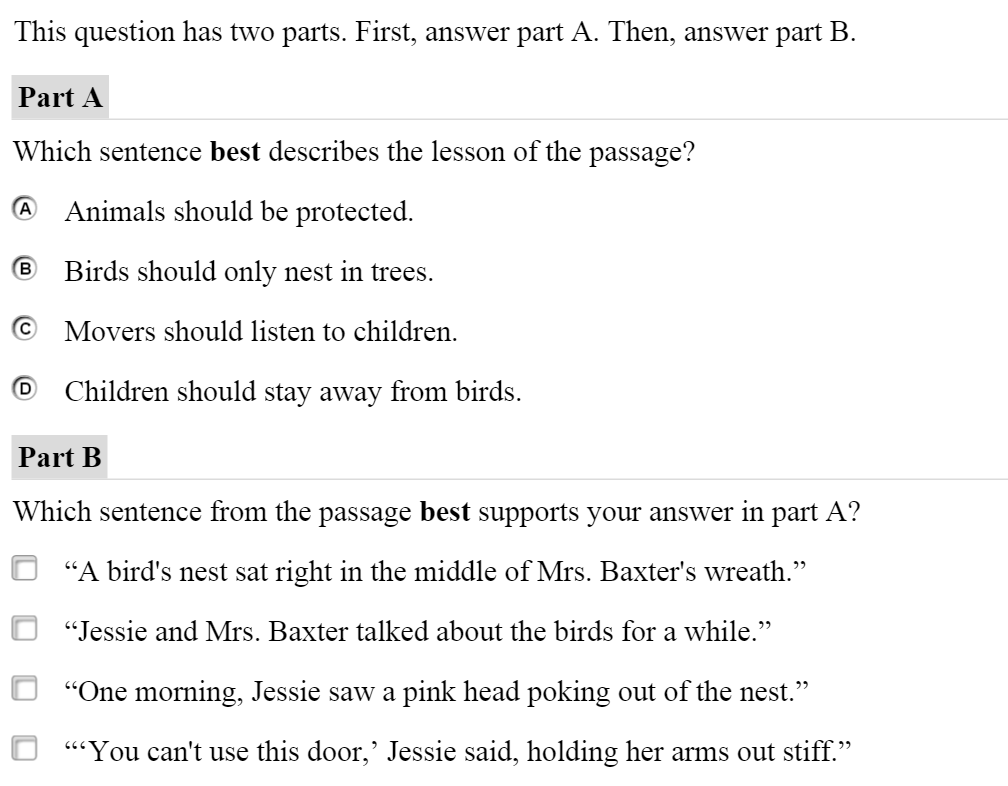
1. **Introduction**
   1. **Purpose**

This document describes each item interaction type and each item-embedded accessibility feature for Smarter Balanced assessments. Refer to this document for examples of item types and accessibility features, including information about how accessibility features are made available.

1. **Primary Item Types**
   1. Evidence-Based Selected Response (EBSR)

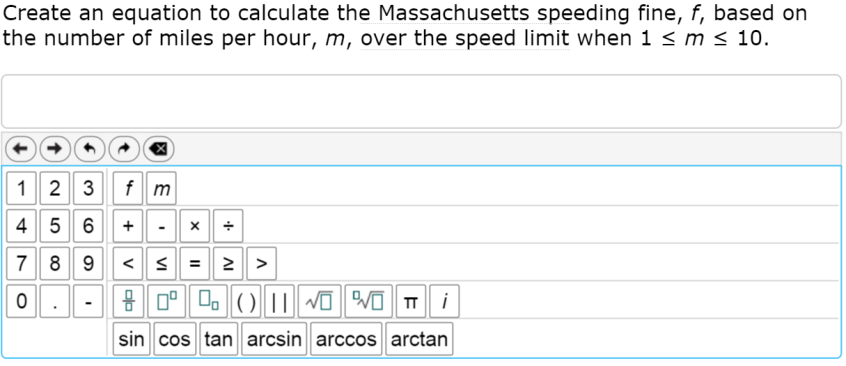
EBSR items combine two sets of stems and response options into a single item. Unlike MultipleChoice and Multi-Select item types, EBSR items cannot be displayed in horizontal or stacked layouts. EBSR items can only display response options vertically.

For Smarter Balanced, the first part of an EBSR item is multiple choice where only one answer can be selected. In the second part, multiple answers may be selected though the instructions may specify a limit to the student. In the example below, the student is only expected to select one answer from the second part.



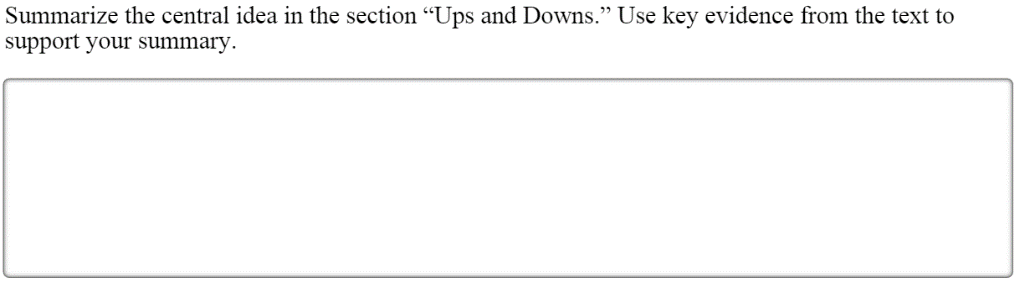
* 1. **Equation (EQ)**

The Equation item response area consists of one or more entry boxes and an on-screen key panel containing mathematical characters. These items are 769 pixels wide or use 100% of the available response area width (whichever is smaller). The default height is 254 pixels. The item indicates which of 11 pre-defined layouts should be used for the math input key panel.



* 1. **Extended Response (ER) and Short Answer (SA)**

The response areas for Extended Response (ER) and Short Answer (SA) item types essentially have the same appearance. Extended Response (ER) areas accommodate more text than Short Answer response areas. You can configure the character limit for both item types.

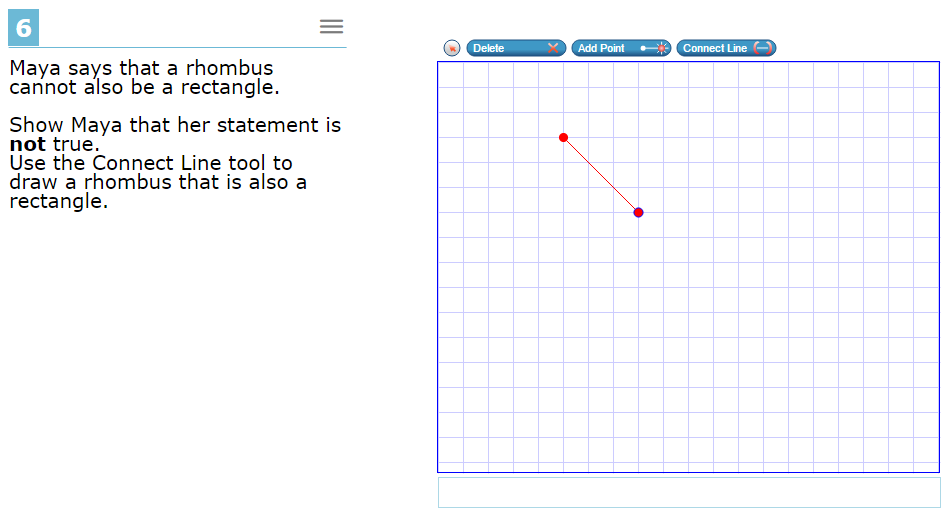


* 1. **Grid Item (GI)**

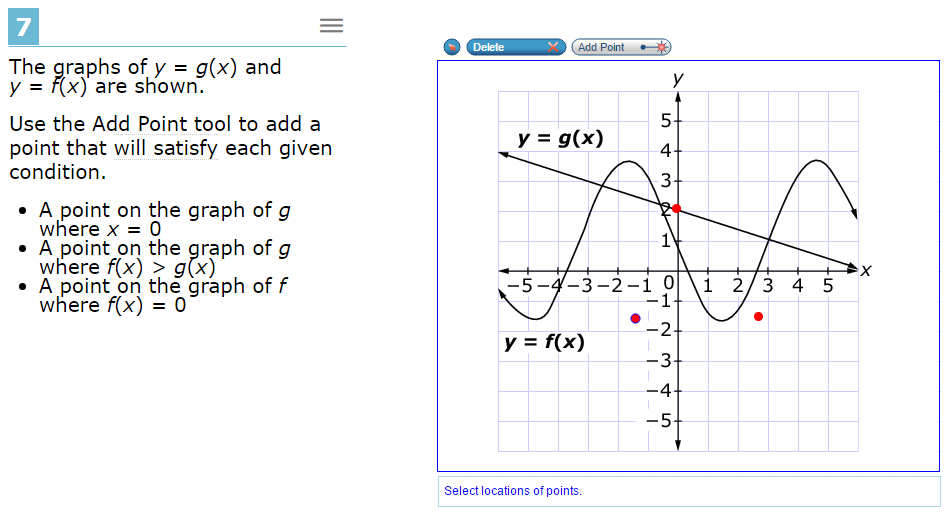
Smarter Balanced uses three variations of the Grid Item type, each with a distinct appearance and interaction mode.

* + 1. **Grid Item (GI) - Graphing**

The Grid Item - Graphing variant response area consists of a grid in which students plot points and/or lines. The available tools include a select, delete, add point, and connect line. Depending on the item, the point or line tool may not appear. A text box below the grid offers hints on what the student can do with each tool.



The response area may have a background image on which the student plots points or lines as in this example.

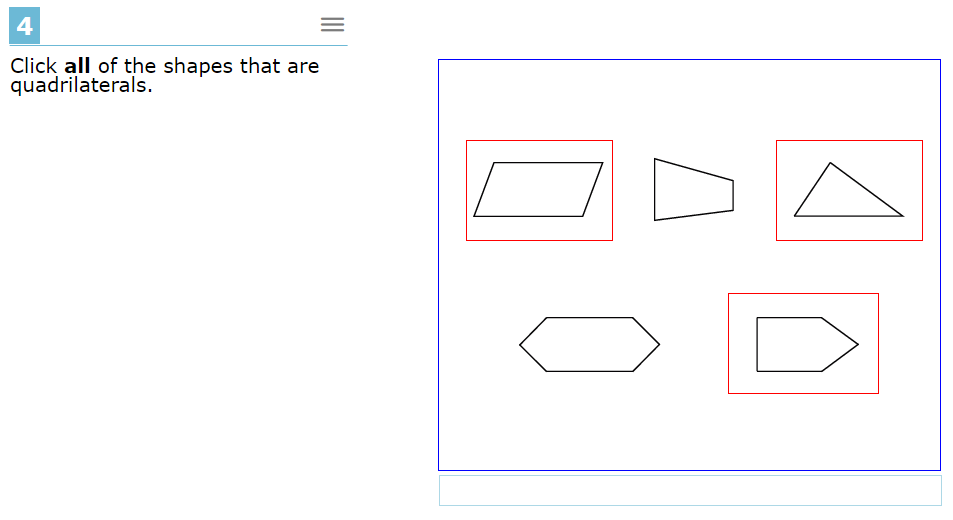


Grid Item – Graphing Variants may constrain points and lines; for example they may be constrained to a number line. The background, whether a simple grid, a graph with axes, or another image is simply a bitmap.

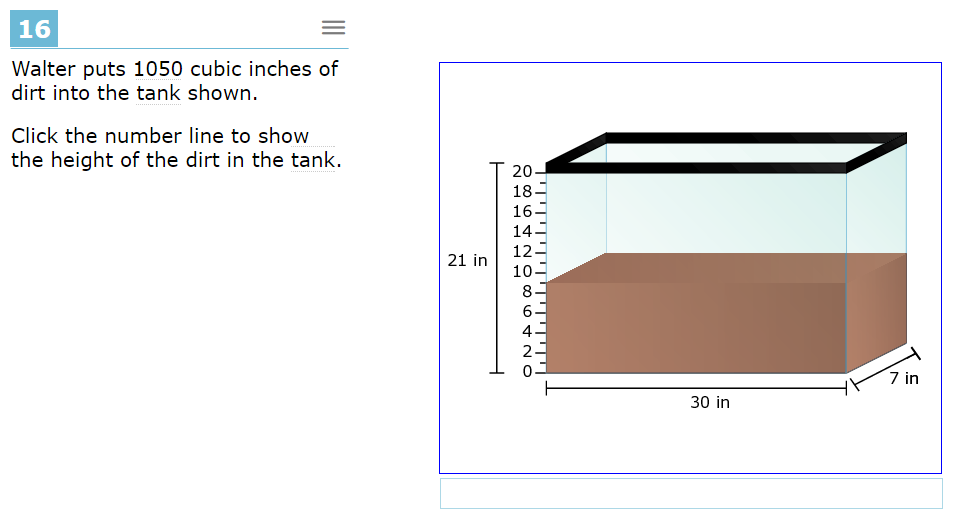
* + 1. **Grid Item (GI) – Hot Spot**

The Grid Item – Hot Spot Variant response area consists of a space in which images are displayed. Clicking on certain hot spot areas causes images appear or disappear. Transparent sections of the images allow the background to show through.

In this example, the clicking on the shapes causes the selection box to appear around the shape.



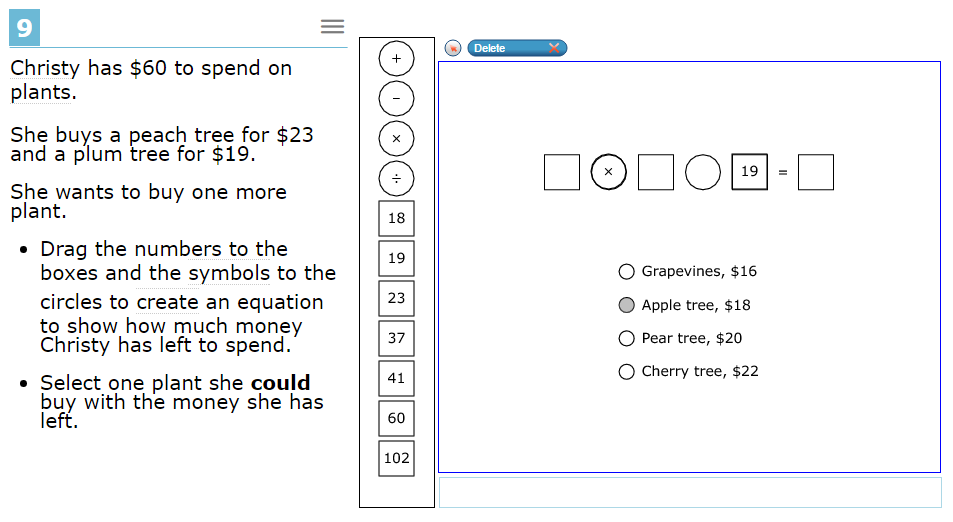
This is another example of a Grid Item – Hotspot variant. In this case there is a different image representing each level and they are selectively displayed according to the hotspot where the student clicks. The same technique is also used to create bar charts that may be manipulated by the student.



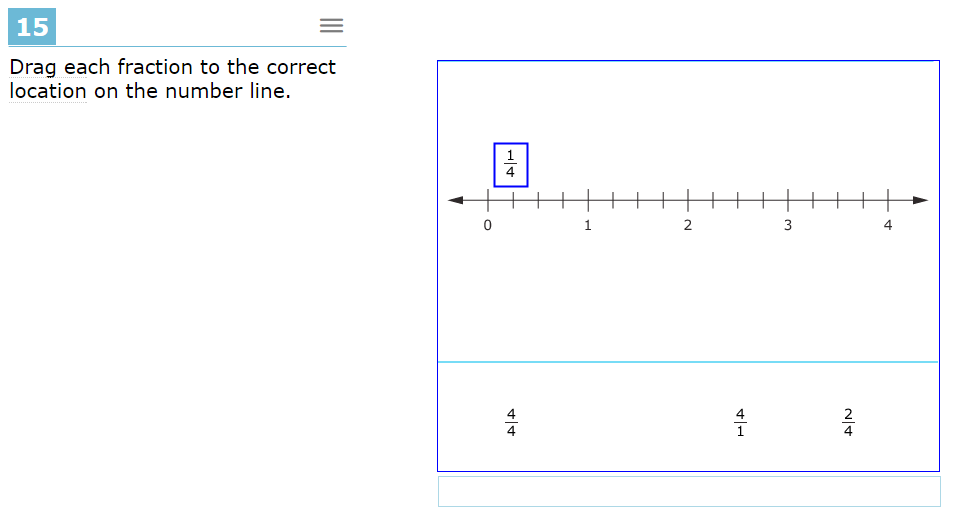
* + 1. **Grid Item (GI) – Drag and Drop**

The Grid Item – Drag and Drop variant has a workspace with a background image. Other images can be dragged and dropped into the workspace. The drop locations may or may not be constrained. When they are constrained, dropped images snap to nearby locaitons.

This example of the Drag and Drop variant includes a palette of items to the left that can be drag into the workspace. The same item may be used more than once. The student may use the delete tool can be used to remove an item from the workspace.

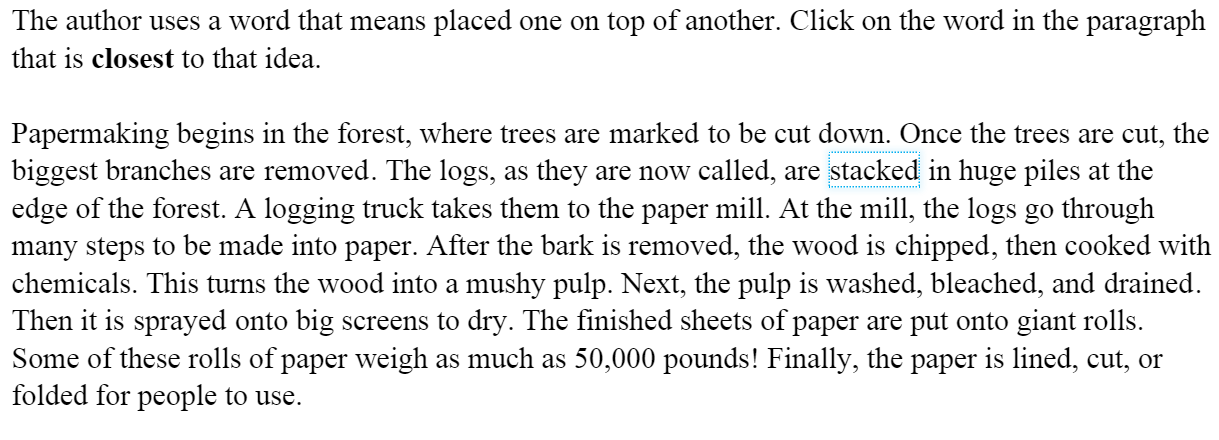


This example has images pre-located in the workspace that may be moved around by the student. They may be moved around but not added or deleted.



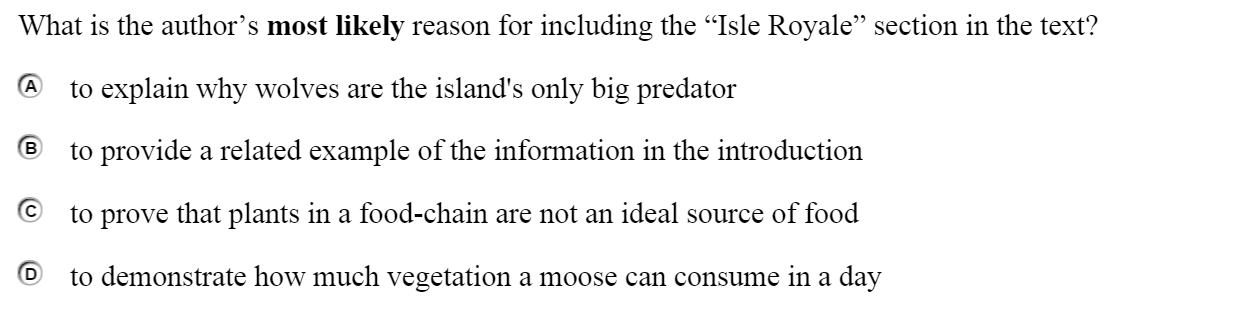
* 1. **Hot Text (HTQ)**

The response area for Hot Text items consists of a section of text containing interactive words or phrases that students can either select (highlight) by clicking or rearrange by clicking and dragging. In the image below, the word ‘stacked’, outlined in light blue, is an example.



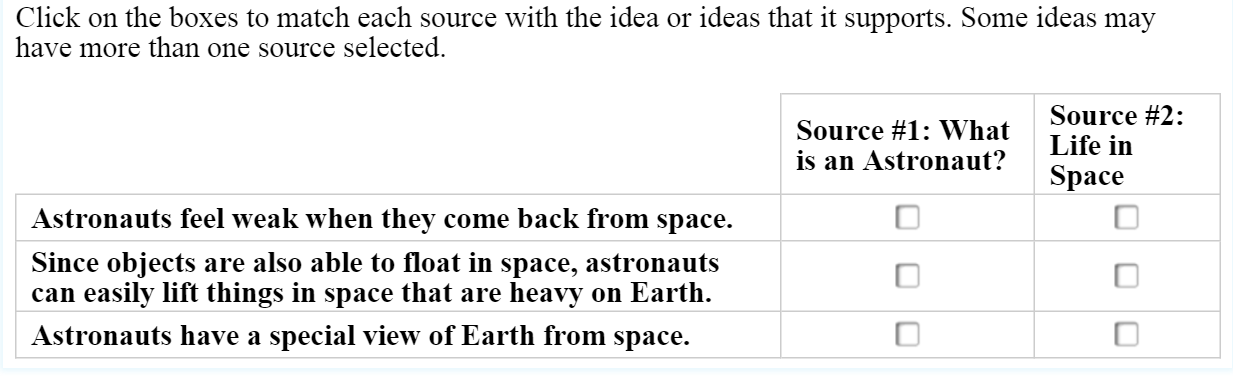
* 1. **Multiple Choice (MC)**

For multiple choice responses, only one answer can be selected among several possibilities.



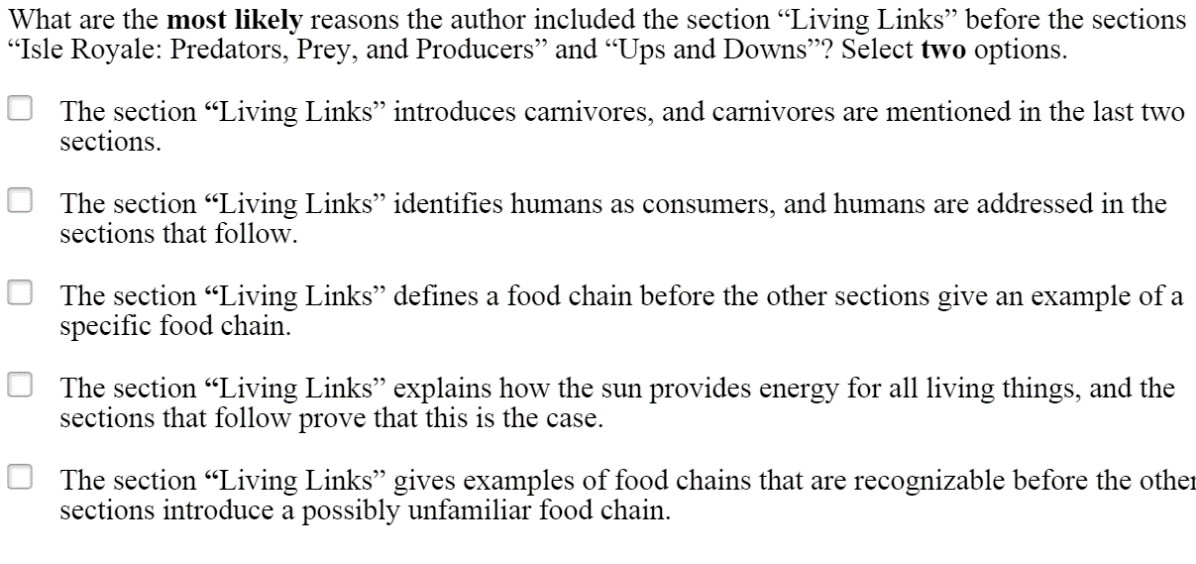
* 1. **Match Interaction (MI)**

For the Match Interaction (MI) types, text or images in rows are matched values in columns. The student selects the boxes where a match is valid.



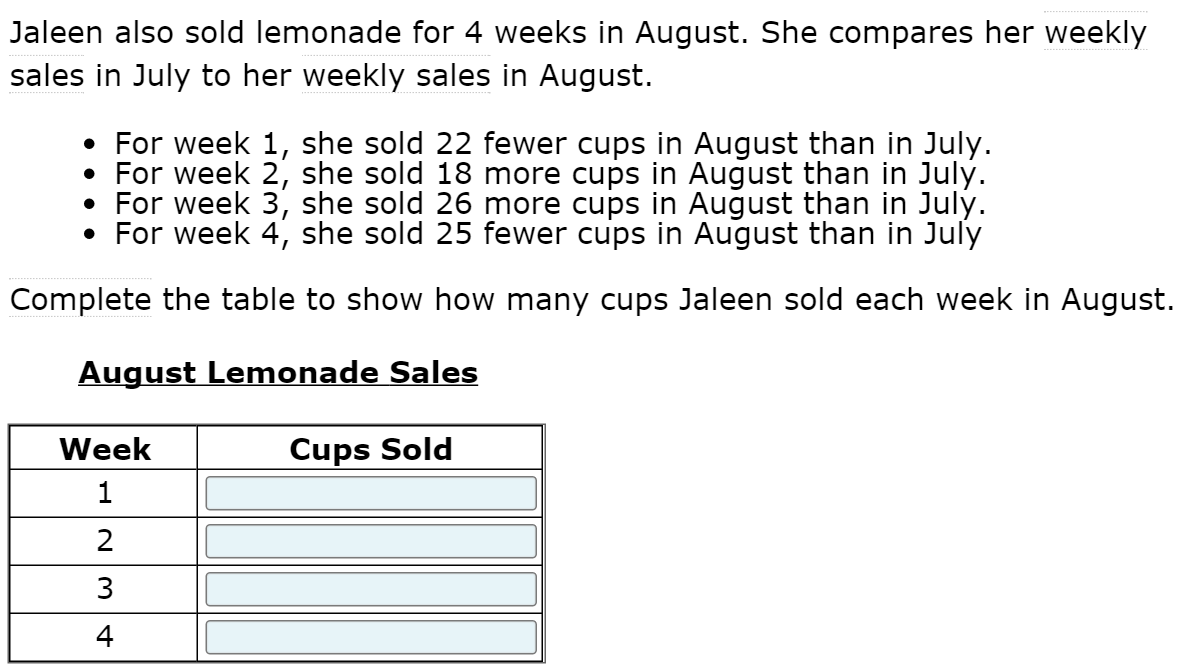
* 1. **Multi Select (MS)**

For the Multi Select (MS) option, students are given a number of items to select to answer the questions. For the example below, two of the listed items will be selected.



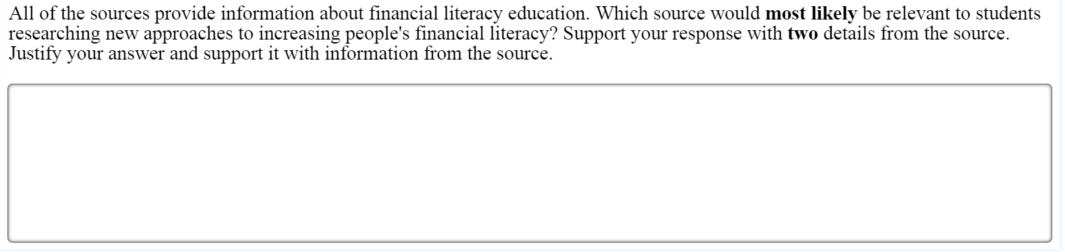
* 1. **Table Interaction (TI)**

For Table Interaction (TI) item types, students are provided with a table that includes a separate area of cells in which students may enter text.



* 1. **Writing Extended Response (WER)**

Writing Extended Response (WER) item types provide more space for students to provide their written responses.



* 1. **Supplementary Item Types**

Supplementary item types are, *Passage* (Pass), and *Tutorial* (Tut), and *Wordlist* (Glossary).

* + 1. **Passage (Pass)**

A passage is an extended stimulus that is referenced by multiple response items that follow. Typically a passage is an extended-length text in HTML format. However, it can include multimedia such as an audio listening passage or a video. As with response items, passages may have accessibility features such as ASL video and closed captioning.

* + 1. **Tutorial (Tut)**

Like a passage, a tutorial is extended HTML text which may include multimedia and accessibility features. Each tutorial is associated with a particular response type and is used to inform students how to respond to that particular interaction type.

* + 1. **Wordlist (Glossary)**

A wordlist is supplementary material to an item that provides glossary entries in English and other languages. Glossary information may include text, audio, and images.

1. **Accessibility Features**

Accessibility features are made available in one of three ways: *Item-Embedded Features, System-Embedded Features*, and *Non-Embedded Features*.

This document only describes the item-embedded features. Additional details about all accessibility features can be found in the Usability, Accessibility, and Accommodations Guidelines (UAAG) found on SmarterBalanced.org (<http://www.smarterbalanced.org/wp-content/uploads/2015/09/Usability-Accessibility-Accomodations-Guidelines.pdf>).

* 1. **Item-Embedded Features** appear *within* the assessment items and may be customized to match the item contnet. This category includes information that may not be visible in a conventional browser but interacts with assistive technology, such as alternative spellings for text-to-speech and braille screen readers.
     1. Embedded American Sign Language (ASL) videos for math items, math performance tasks (PTs), and ELA listening sets (audio stimulus and associated items).
     2. Closed captioning for ELA listening stimuli and other audio components in the test delivery interface.
     3. Text-to-speech annotations (alternate text spelling to improve text-to-speech performance) – for use by assistive technology.
     4. Braille emboss-on-demand attachments
     5. Stacked translation into multiple languages
     6. English glossary for specific words or phrases.
     7. Translated glossary for specific words or phrases
     8. Image glossary for specific words or phrases
     9. Audio clips attached to English and translated glossary entries
     10. Image glossary for specific words or phrases
     11. Braille transcripts of closed captions.
  2. **System-Embedded Features** are offered online by the test delivery system but are not embedded in the item. Examples include a dictionary, or calculator. Availability of these features may be restricted according to item metadata.
  3. **Non-Embedded Features** are provided by the test administrator or organization. Examples are a paper multiplication table, translated test directions, or a bilingual dictionary.