









Assessment Question Types


- [1 Short-Answer](#)
- [2 True/False](#)
- [3 Yes/No](#)
- [4 Drag and Drop](#)
- [5 Select Multiple Answers](#)
- [6 Short Response](#)
- [7 Table](#)
- [8 Box Manipulative](#)
- [9 Number Line Manipulative](#)
- [10 Number Line Drag](#)
- [11 Number Line Open Ended](#)
- [12 Calendar](#)
- [13 Plotting Points](#)
- [14 Creating an Inequality or Equation](#)
- [15 Plotting Shapes](#)
- [16 Writing an Equation from a Line](#)
- [17 Select a Point](#)
- [18 Drop-down Menu](#)
- [19 Multi-Part Questions](#)
- [20 Protractor Manipulative](#)
- [21 Ruler Manipulative](#)
- [22 Calculator Manipulative](#)
- [23 Grading Rubric for Short Response Questions:](#)

1 Short-Answer



In this question type, students are presented with a question (often a word problem or simple computation), and they are asked to input their answer as a number or expression.

**Question 1**







If $N = 7$, what is the value of P ?



$$25 - N \times 3 = P$$




(B3) Enter the answer to the expression.





2 True/False


Students are presented with a series of questions in this layout, and are asked to choose whether each statement is true or false.





Question 3














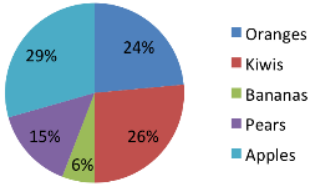


Choose whether each statement is true or false.





Favorite Fruit




Fruit	Percentage
Oranges	24%
Kiwis	26%
Bananas	6%
Pears	15%
Apples	29%

- Oranges
- Kiwis
- Bananas
- Pears
- Apples


More people like oranges than apples.	True	False
Apples are the most popular fruit.	True	False
Fewer people like kiwis than oranges.	True	False
Pears are the least popular fruit.	True	False





(B3) Select whether each statement is true or false.






3 Yes/No

Similar to the true/false layout, students are again presented with a series of questions, but this time they are comparing each question with an original number or expression and choosing whether or not they are equal.

**Question 1**







Look at each equation. Does $x = -1.5$? Select Yes or No for each equation.


$8 = 8x - 4$	Yes	No
$\frac{x + 3.5}{2} = 1$	Yes	No
$-6 = 3x - 1.5$	Yes	No
$x - 3 + x = 6$	Yes	No

(B3) Determine whether $x = -1.5$ in each equation. Select Yes or No for each one. Press the Submit button when you are done.

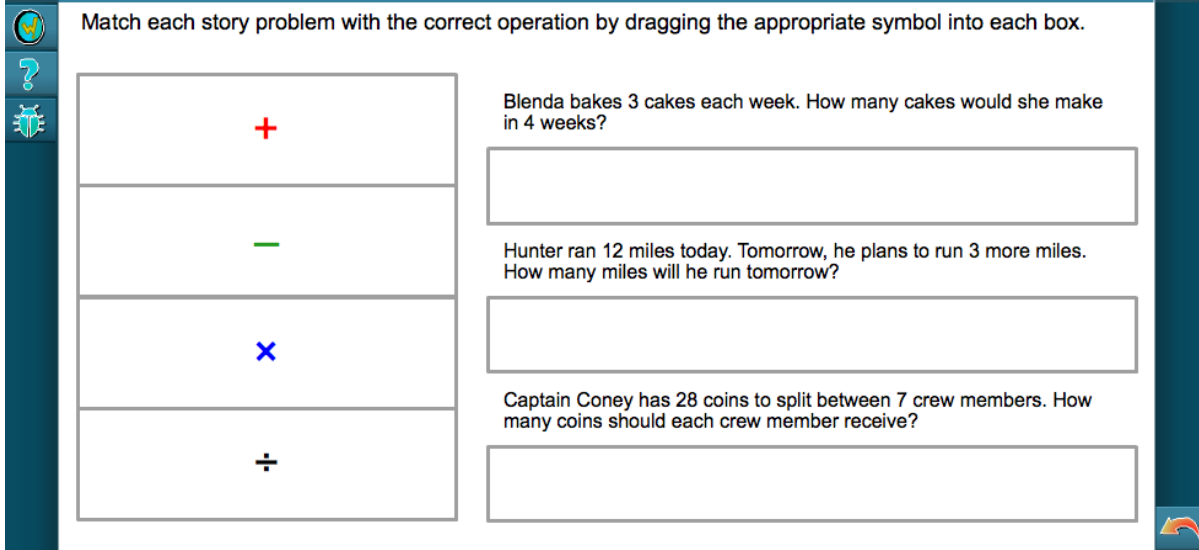


4 Drag and Drop

In this problem type, students drag numbers or words to different categories.




Question 5



Match each story problem with the correct operation by dragging the appropriate symbol into each box.

$+$	Blenda bakes 3 cakes each week. How many cakes would she make in 4 weeks?
$-$	Hunter ran 12 miles today. Tomorrow, he plans to run 3 more miles. How many miles will he run tomorrow?
\times	Captain Coney has 28 coins to split between 7 crew members. How many coins should each crew member receive?
\div	

(B3) Match each story problem with the correct operation by dragging the appropriate symbol into each box.







5 Select Multiple Answers

In this problem type, the students have a bank of questions and they can select any number of them as their answer.

Question 2

Which of the shapes below are parallelograms?







   




Shape A Shape B Shape C Shape D

(B3) Select the names of the shapes that represent parallelograms.


6 Short Response

Here, the students are asked to answer a question AND explain how they got their answer. Teachers will review the answers to these questions, using a rubric we provide.

 **Question 8**     

 Hunter evaluated the expression below, but his answer is wrong! Explain what he did incorrectly and what the correct answer is.



$$5 + 5 \times (6 - 4)$$
$$5 + 5 \times 2$$
$$10 \times 2$$
$$20$$

(B4) Read the word problem above. Enter your explanation in the space provided. 

7 Table

In these problems, students fill in a table using the information provided.

Question 3

Enter the number of possible combinations for each type of pizza.

Directions	Combinations
Thin Crust	<input type="text"/>
Pineapples and Red Sauce	<input type="text"/>
Thick Crust and No Olives	<input type="text"/>
No Peppers and No Olives	<input type="text"/>

Type of Crust

- Pizza
 - Thin
 - Peppers
 - Red
 - White
 - Olives
 - Red
 - White
 - Pineapple
 - Red
 - White
 - Thick
 - Peppers
 - Red
 - White
 - Olives
 - Red
 - White
 - Pineapple
 - Red
 - White


Toppings




Sauce


(B4) Enter your answers to fill in the missing numbers in the table.

8 Box Manipulative

In this type of problem, students click and drag an object into several different boxes. The number of objects they put in each box depends on the range specified by that box.


**Question 7**







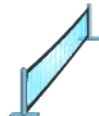
in

cm







Sierra is creating a game that requires 1 net for every 2 balls on court. She wants to use a total of 3 nets. Design the court by dragging over 3 nets and the correct number of balls.









Court






(B3) Drag the correct number of nets and balls onto the court.

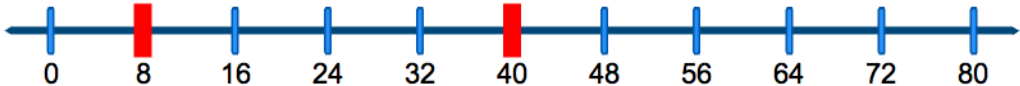
9 Number Line Manipulative

In this type of problem, students are able to click on a number line to divide it into sections to answer a word problem.

**Question 5**





8 multiplied by what number equals 56? You may use the number line to help you find your answer. If you select a tick mark, a line will appear.



0 8 16 24 32 40 48 56 64 72 80

3 4 5 6 7 8

(B3) Select the missing number in the number sentence.



10 Number Line Drag

In this type of problem, students drag over numbers or expressions onto a number line, placing each one in the correct location.

Question 4


Move each expression into a box to show its correct location on the number line.





$3 - \frac{3}{4}$	$\frac{1}{2} + \frac{1}{4}$
$3\frac{1}{2} - \frac{3}{4}$	$2\frac{1}{2} - 2\frac{1}{4}$




(B3) Drag each expression to the appropriate box.

11 Number Line Open Ended

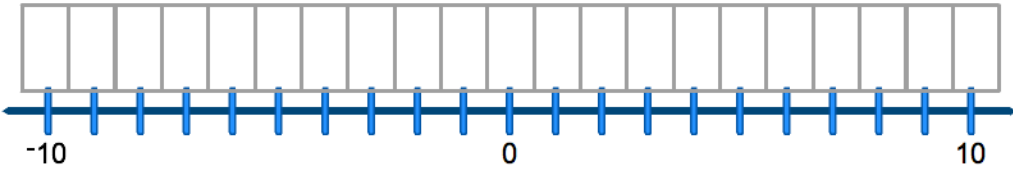
In this type of question, students are able to drag integers to any location along a number line.

**Question 11**






Move each integer to its correct location on the number line.




-8 ↓	-4 ↓
3 ↓	5 ↓




(B3) Drag each number to the appropriate space above the number line.



12 Calendar



Using a calendar, students are asked to solve a story problem and enter their answer by selecting the correct date.

 **Question 9**

Lesa goes swimming every 4 days and running every 6 days. If she went swimming and running on August 3, what is the next day she will do both activities?

Mon	Tue	Wed	Thu	Fri	Sat	Sun
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

(B3) Select the next date on the calendar when Lesa will go swimming and running on the same day.

13 Plotting Points

Given a set of coordinates, students are asked to plot them on a coordinate plane.

Question 5

Plot a point at $(-1, -2)$.

+

-

14 Creating an Inequality or Equation

In this type of question, the student must drag numbers, symbols, or variables into boxes in order to make a valid inequality or equation.

Question 5

in

cm

$\frac{6}{10}$	$\frac{7}{8}$	0.68	0.75
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<


<




<

(B4) Drag the numbers that make this statement true.

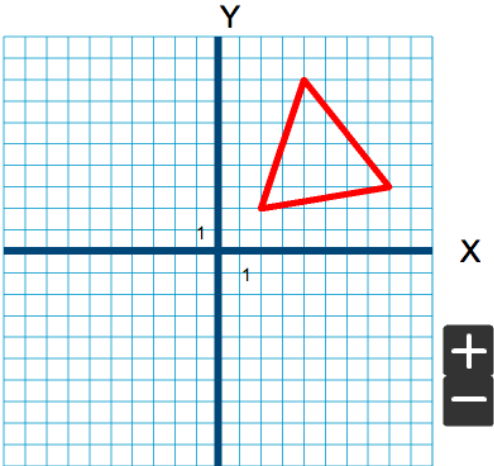
15 Plotting Shapes

Given a shape on the coordinate plane, the student must transform it in some way and plot the new vertices.

**Question 13**



Plot the points of the given triangle after it has been rotated 90° clockwise about the origin.



16 Writing an Equation from a Line

In this type of question, the student must write the equation for a line that has been drawn on a coordinate plane.

[illegible]

17 Select a Point

Given a set of criteria, the student must select the correct point.

Question 1

(B7) Select the point in Quadrant I.

18 Drop-down Menu

The student must use a drop-down menu to create an equation or otherwise solve a problem.

Question 5

Four pillows cost \$24.80. How much does each pillow cost?

			=	
<div><div></div><div>\$24.80</div><div>4</div><div>÷</div><div>x</div></div>	<div></div>	<div></div>		<div></div>

(B4) Use the drop-downs to create the equation necessary to find out how much each pillow costs. Submit your answer when you are done.

19 Multi-Part Questions

Some questions have multiple steps. Students can navigate between the different questions, which combine several math concepts together.

(part 1)

The screenshot shows a digital interface for a math problem. At the top, a grey header bar contains the text "Question 17" followed by navigation icons: a left arrow, a right arrow, a double left arrow, a double right arrow, a checkmark, and a document icon. To the right of these are icons for a calculator, a unit converter (showing "in" and "cm"), and a help icon. Below the header, the main content area has a white background. It starts with the instruction "Enter the number of people that are going to attend Mario's birthday party." followed by a paragraph: "Mario is having a birthday party for himself, which will be held at Reidy's Bowling Alley. He sent out 51 invitations to his friends and family. 11 people responded to the invite and said they would not be attending. How many people are planning on attending Mario's birthday party?". Below the text is a dark grey rectangular input field with a small yellow square cursor. At the bottom, a yellow bar contains the text "(B3) Enter the number of people that are going to attend Mario's birthday party." and a small rainbow icon on the right. On the left side of the interface, there is a vertical blue bar with several icons: a question mark, a bug, and a red 'X'.

Question 17

Enter the number of people that are going to attend Mario's birthday party.

Mario is having a birthday party for himself, which will be held at Reidy's Bowling Alley. He sent out 51 invitations to his friends and family. 11 people responded to the invite and said they would not be attending. How many people are planning on attending Mario's birthday party?

(B3) Enter the number of people that are going to attend Mario's birthday party.

(part 2)

Question 17

Reidy's Bowling Alley needs to make sure they have enough supplies for the party. Based on the number of people that are planning on attending the party, enter the number of each item that will need to be available for the party. The necessary information is below.

- 8 people per lane
- 4 people per team
- 1 pizza per 4 people
- 1 liter of soda per 5 people

Number of lanes needed:

Number of pizzas needed:

Number of bottles of soda needed:

2	3	4	5	6
7	8	9	10	12

(B4) Use the given information to determine the number of lanes, pizzas, and bottles of soda they will need for the party. Drag each answer to the appropriate box, then press the Submit button.

(part 3)

Question 17

The party is coming to end. Everything went as planned and it is time to go home. Mario has a prize for the bowling team with the highest score. Order the following bowling scores from highest to lowest.

> > > > > > > > > >

62	73	54	85	86
77	58	79	90	66

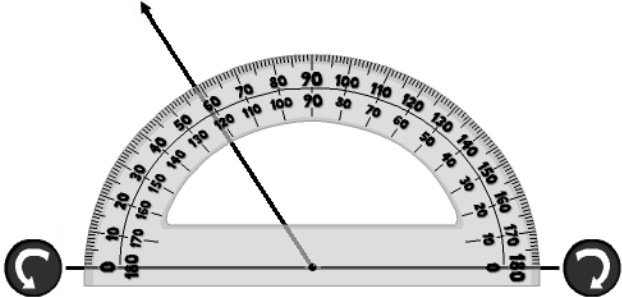
(B4) Drag the bowling scores from least to greatest, then submit your answer.

20 Protractor Manipulative

The student is able to drag and rotate a protractor on screen to measure angles.

Question 1

What is the measurement of the acute angle below?




0 degrees 60 degrees 80 degrees 70 degrees

(B3) Select the measurement of the acute angle.

21 Ruler Manipulative

The student is able to drag and rotate a ruler on screen to measure lengths in inches or centimeters.




Question 1


Calculator

in


cm


Protractor








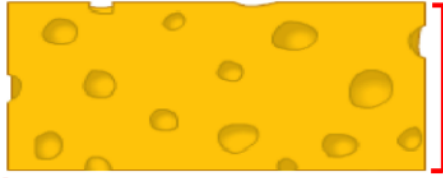
Measure the cheese below and add its length and width to the chart.





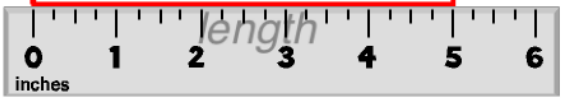
Food	Length (inches)	Width (Inches)
Cheese		






width

length



(B4) Fill in the length and width of the cheese.



22 Calculator Manipulative

For more difficult computations, students are able to use our built-in calculator.

Question 3

Evaluate the expression below using the correct order of operations.

$$3 + 2^3 - (5 \cdot 2) + 7$$

(B3) Input your answer.

0

1/xloglnX^a

shifthypsincostan

M+MinMRx²√

() % CE AC

EXP789÷

π456×

rand123−

±0.=+

23 Grading Rubric for Short Response Questions:

	3	2	1	0
Solution Method				
1. Solution Method Identification	Clearly displays a valid method that uses the appropriate information presented in the problem (e.g. diagram, table, computation, model, picture)	Uses a valid method but description lacks clarity	Uses a valid method but description is incomplete	Uses a plan that is not appropriate for the problem
2. Solution Process	Shows all steps in the solution process	Shows most of the steps	Shows some of the steps	Shows almost no steps used in solving the problem
Mathematical Precision				
1. Academic Language	Uses appropriate math words correctly	Most math words are used correctly	Some math words used incorrectly	Math words are not used
2. Answer	Numerically correct and labeled correctly	Numerically correct but not labeled	Numerically incorrect but labeled correctly	Answer not arrived at or incorrect number and label
Explanation				
1. Explains What They Did	Explains what was done in each step and/or why a particular method was used (e.g. explains why a drawing was used)	Explains what was done in most of the steps	Explains what was done in some of the steps	No explanation of the steps or all explained steps are incorrect
2. Explains Why They Did It	Explains why each step was done using words like "because"	Explains why most of the steps were done	Explains why a few of the steps were done	No explanation of why steps were done.