



IMAGINING
the possibilities.
MAKING THEM HAPPEN.



**Indiana
Department of Education**

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Indiana Superintendent of Public Instruction

ISTEP+ Math Experience Online

What is Experience Online

- Sample technology enhanced (TE) items used to help familiarize students, teachers, administrators, and parents with item types that will be found on the Spring ISTEP+ Part 2 assessment.
- What it's not:
 - A pretest
 - A diagnostic tool

Experience Online Item Types

- **Multiple-Correct Response:** Students will select two or more correct responses.
- **Drag-and-Drop:** Students will select answers and drag them into response areas.
- **Drop-Down List:** Students will select answers from a drop down menu.
- **Select Text:** Students will select evidence in context.
- **Fraction Representations:** Students will use the fraction palette to create a model of the required fraction.

Experience Online Item Types

(continued)

- **Matching:** Students will select responses in a table format.
- **Equation and Expression Entry:** Students will enter their own number answer, expression, or equation.
- **Graphing:** Students will create bar and line graphs in order to display data.
- **Graphing Points and Equations/Inequalities:** Students will plot points and graph equations/inequalities on a graph/coordinate plane.

Multiple-Correct Response

- Grade 3-4, Item 2

← → Review ▾ Bookmark A. Guest

Olivia colors a rectangle. The rectangle has an area of 18 square inches.

What could be the length and width of the rectangle? Select TWO pairs of measurements that apply.

- A. 8 inches and 1 inch
- B. 9 inches and 2 inches
- C. 6 inches and 3 inches
- D. 5 inches and 4 inches
- E. 12 inches and 6 inches

Drag-and-Drop

- Grade 5-6, Item 5

Navigation bar with buttons: Review, Bookmark, and a toolbar with icons for navigation and editing. User: A. Guest

Kenna has eight fish tanks. The numbers of fish in each tank are shown in this list.

5, 18, 36, 13, 5, 3, 7, 17

Drag a number into each box to answer the questions about the data.

What is the median?

What is the mean?

What is the mode?

5

7

9

10

12

13

17

31

Drop-Down List

- Grade 5-6, Item 2



Review ▾

Bookmark



A. Guest



Gina buys a 12-pound bag of oranges. There are 32 oranges in the bag. All the oranges are about the same weight.

Gina writes an equation to calculate the weight, in OUNCES, of one orange. Select from the drop-down menus to complete Gina's equation.

$$12 \text{ Choose.. } \downarrow \quad 32 \text{ Choose.. } \downarrow \quad 16 = \text{ Choose.. } \downarrow \text{ ounces}$$

Select Text

- Grade 7/8, Item 5

← → Review ▾ Bookmark  A. Guest 

A teacher gave her class the following problem:

“Ted has \$6.00. He will buy a notebook for \$1.50 and some pencils. Each pencil costs \$0.25. Write and solve an equation to determine the maximum number of pencils, p , Ted can buy.”

The work of two students is shown. One of the students has an error in their work. Click on the step in Anthony's or Maria's work that contains an error.

Anthony

Step 1: $1.5 + 0.25p = 6$

Step 2: $0.25p = 7.5$

Step 3: $p = 30$

Solution: 30 pencils

Maria

Step 1: $0.25p + 1.5 = 6$

Step 2: $0.25p = 4.5$

Step 3: $p = 18$

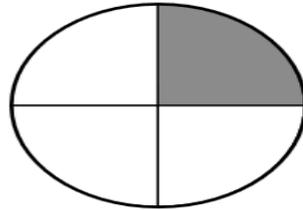
Solution: 18 pencils

Fraction Representations

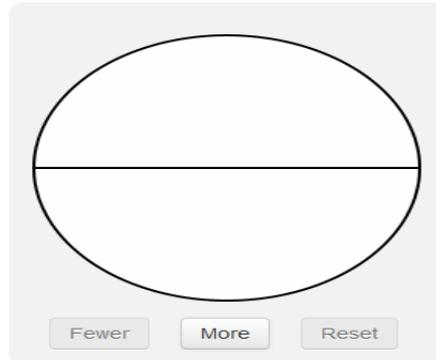
- Grade 3/4, Item 11

Maryn drew the fraction model shown.

Maryn's Fraction Model



Create a fraction equivalent to the fraction Maryn modeled, but with a different numerator. Divide the figure into the correct number of equal parts by using the More and Fewer buttons. Then select the parts you want to shade.



Fewer More Reset

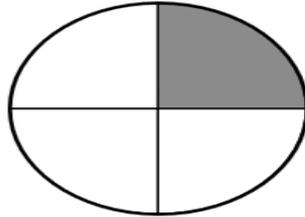
Fraction Representations

- Grade 3/4, Item 11

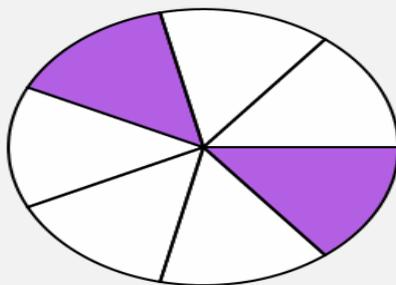
Navigation bar with buttons: Review, Bookmark, and user profile (A. Guest).

Maryn drew the fraction model shown.

Maryn's Fraction Model



Create a fraction equivalent to the fraction Maryn modeled, but with a different numerator. Divide the figure into the correct number of equal parts by using the More and Fewer buttons. Then select the parts you want to shade.



A circle divided into six equal sectors by three lines meeting at the center. Two sectors are shaded purple, representing the fraction 2/6.

Fewer More Reset

Matching

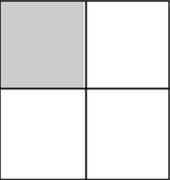
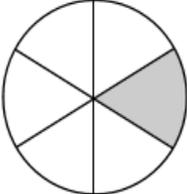
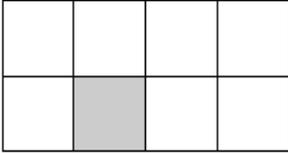
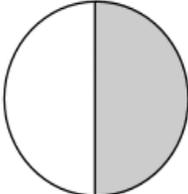
- Grade 3-4, Item 1

← Review Bookmark → [mouse cursor] [eraser] [highlighter] [pencil] [close]

A. Guest [user icon]

Emily shaded a fraction of several shapes. Each shape is separated into equal parts.

Click on the box that shows the fraction of each shape that is shaded.

				
$\frac{1}{8}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{1}{6}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{1}{2}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{1}{4}$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Equation and Expression Entry

- Grade 7-8, Item 2



Review ▾

Bookmark



A. Guest



ISTEP+ GRADES 7-8 ONLINE EXPERIENCE / SECTION 1: MATHEMATICS / 2 OF 14

A student is making a digital audio recording of a school orchestra concert. She knows that each minute of recording uses 2.4 megabytes of storage space.

Write an equation that can be used to determine the amount of storage space used, s , in megabytes, given the amount of recording time, in minutes, r .

	+	-	×	÷	$\frac{\square}{\square}$	$\frac{\square}{\square}$
	y^x	$\sqrt{\square}$	$\sqrt[3]{\square}$	=	(-)	%

Graphing (line plot)

- Grade 3-4, Item 12



Review ▾

Bookmark



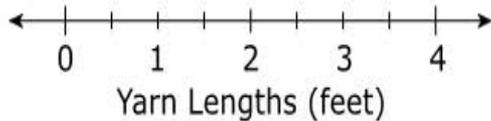
A. Guest

ISTEP+ GRADES 3-4 ONLINE EXPERIENCE / SECTION 1: MATHEMATICS / 12 OF 14

Darius measured the lengths of several pieces of yarn and listed the lengths, in feet, below.

3, $2\frac{1}{2}$, 1, 2, $2\frac{1}{2}$, 1, $1\frac{1}{2}$, $2\frac{1}{2}$, $1\frac{1}{2}$

Complete the line plot below to represent the lengths of yarn Darius measured.



Graphing (line plot)

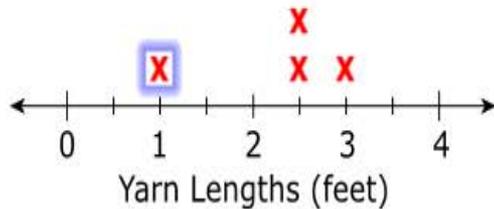
- Grade 3-4, Item 12

Navigation and user interface elements: back and forward arrows, Review dropdown, Bookmark button, mouse cursor, eraser, pencil, and close buttons, and user profile A. Guest.

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Complete the line plot below to represent the lengths of yarn Darius measured.



Graph Points, Lines, etc

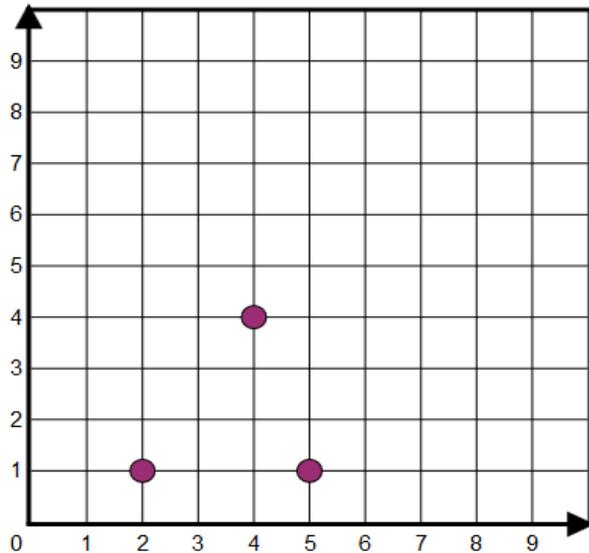
- Grade 3-4, Item 8

← → Review Bookmark [mouse cursor] [eraser] [highlighter] [pencil] [close]

A. Guest [user icon]

Three of the vertices (corners) of a parallelogram are drawn on a grid.

Place the fourth vertex (corner) of the parallelogram on the grid.



Graph Points, Lines, etc

- Grade 7-8, Item 13



Review ▾

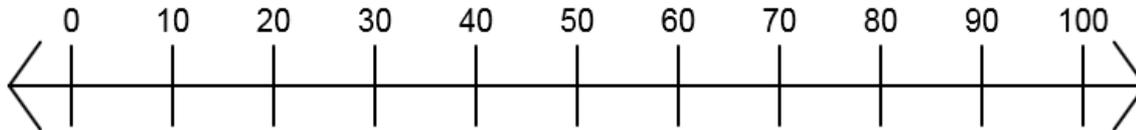
Bookmark



A. Guest

A student club at a middle school wants to sell plates of food at a fund-raiser. The club spent \$100 on food to prepare the plates and will sell them for \$5 each. The club wants to make a profit of at least \$200. This situation can be represented by the inequality $5n - 100 \geq 200$, where n represents the number of plates sold.

On the number line below, represent the solution set for this inequality. Select a solution-set indicator. Drag the points on the indicator to the appropriate locations on the number line.

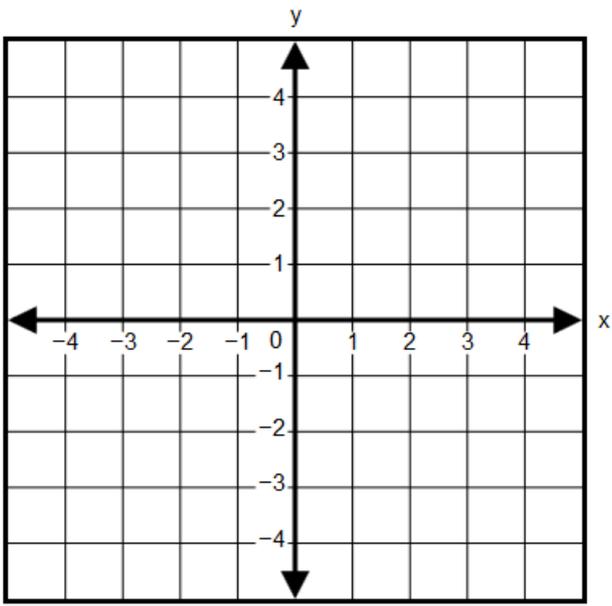


Graph Points, Lines, etc.

- Grade 7-8, Item 4

Navigation bar with buttons: Review, Bookmark, and various utility icons (mouse, eraser, pencil, calculator, close, print). User: A. Guest

On the coordinate grid, graph a line that contains the point $(-2, 1)$ and has a slope of $\frac{1}{4}$.



Graph Points, Lines, etc.

- Grade 10, Item 1

← → Review Bookmark  A. Guest 

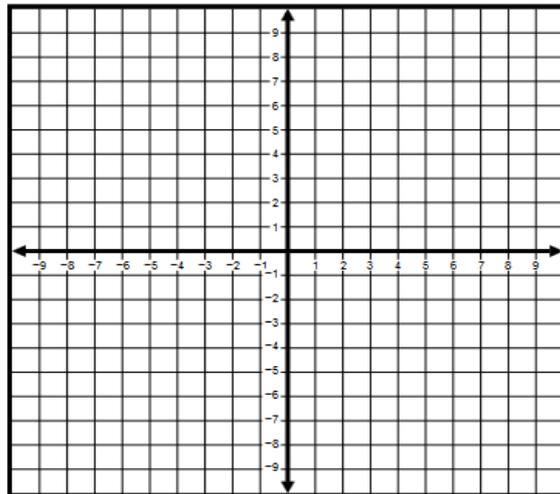
Show the graph of $y = 3x^2 - 6x + 1$ on the coordinate grid.

Select a button to choose the type of graph. Click on the grid twice to plot two points on the graph. Drag the points to adjust the position of the graph.

Linear

Quadratic

Exponential



Graph Points, Lines, etc.

- Grade 10, Item 1

← → Review ▾ Bookmark       A. Guest 

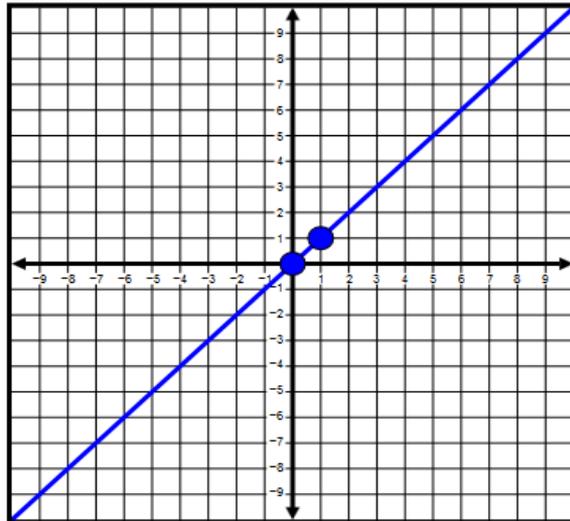
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Linear

Quadratic

Exponential



Graph Points, Lines, etc.

- Grade 10, Item 1

← → Review ▾ Bookmark  A. Guest 

ISTEP+ GRADE 10 ONLINE EXPERIENCE / SECTION 1: MATHEMATICS / 1 OF 4

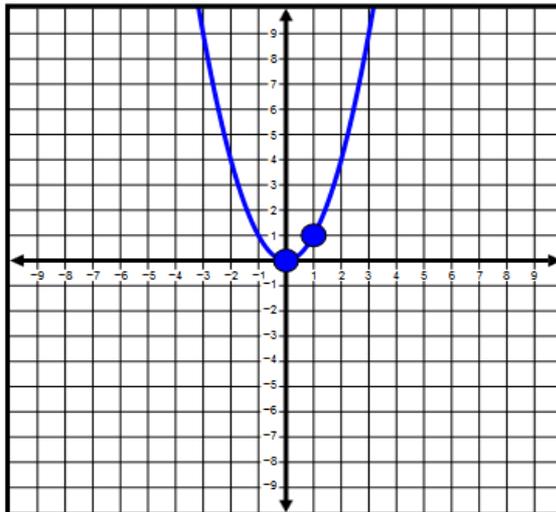
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Linear

Quadratic

Exponential



Graph Points, Lines, etc.

- Grade 10, Item 1

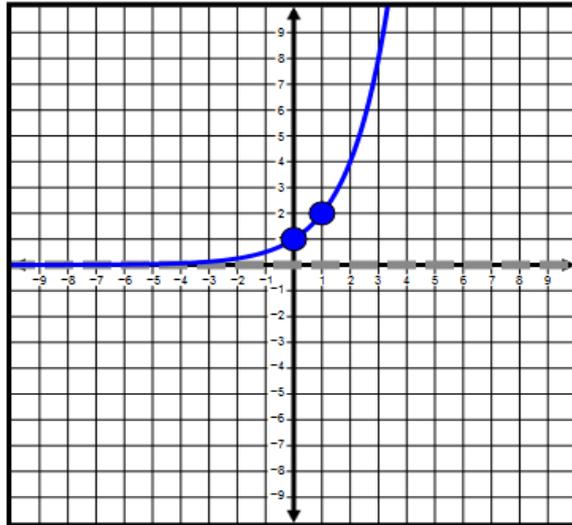
← → Review Bookmark

A. Guest

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- Linear
- Quadratic
- Exponential



Helpful TestNav8 Tools

- Review
- Bookmark
- Answer Eliminator
- Highlighter
- Rulers & Protractors
- Calculators (grades 6-8 & 10)
- Reference Sheet

Questions??

- IDOE Office of Student Assessment
 - INassessments@doe.in.gov
 - 317-232-9050
 - www.doe.in.gov/assessment