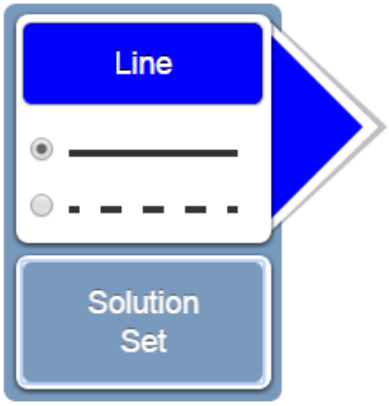
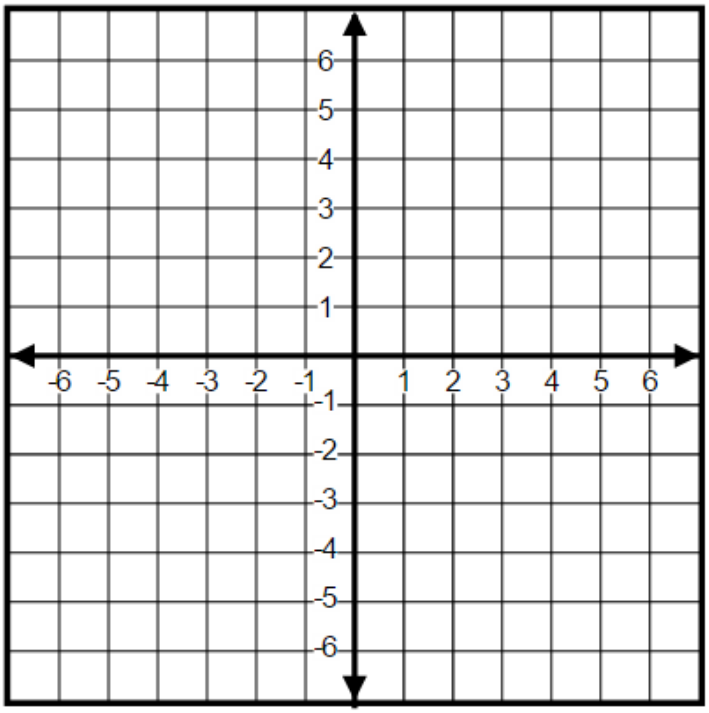
Algebra I PARCC EOY Sample Assessment Item #2 (non-calculator): Standard F-IF.A.Int.1

Graph the solution set of $2x + y > 6$.

Graph the solution set of the linear inequality in the coordinate plane by

- selecting the "line" button to graph the line and choosing the line style,
- selecting the "solution set" button to select the desired region.





1. What do you know about the problem?

2. What questions do you have?

3. Explain your reasoning or thinking in solving the problem.

Algebra I PARCC EOY Sample Assessment Item #3 (non-calculator): Standard A-APR.3-1

Determine all zeros for the function $f(x) = (x^2 + 2x - 8)(x - 6)$.

Drag and drop **all** zeros of the function into the box.

−48	−8	−6	−4	−2	0	2	4	6	8	48

1. What do you know about the problem?

2. What questions do you have?

3. Explain your reasoning or thinking in solving the problem.

Algebra I PARCC EOY Sample Assessment Item #7 (non-calculator): Standard N-RN.B-1

Let a and b be rational numbers and let c be an irrational number.

Part A

Select the appropriate cell in the table to show whether each value is always rational, never rational, or sometimes rational.

Value	$a + b$	$a - b$	c^2
Always Rational	○	○	○
Never Rational	○	○	○
Sometimes Rational	○	○	○

Part B

Consider a quadratic equation with integer coefficients and two distinct zeros. If one zero is irrational, which statement is true about the other zero?

- ○ A. The other zero must be rational.
- ○ B. The other zero must be irrational.
- ○ C. The other zero can be either rational or irrational.
- ○ D. The other zero must be non-real.

1. What do you know about the problem?

2. What questions do you have?

3. Explain your reasoning or thinking in solving the problem.

Algebra I PARCC EOY Sample Assessment Item #1 (calculator): Standard A-SSE.1-1

Elephant Population Estimates—Namibia

Combined estimates for Etosha National Park and the Northwestern Population

Year	Base Year	Estimated Number of Elephants
1998	3	3,218
2000	5	3,628
2002	7	3,721
2004	9	3,571

The elephant population in northwestern Namibia and Etosha National Park can be predicted by the expression $2{,}649(1.045)^b$, where b is the number of years since 1995.

What does the value 2,649 represent?

A. the predicted increase in the number of elephants in the region each year

B. the predicted number of elephants in the region in 1995

C. the year when the elephant population is predicted to stop increasing

D. the percentage the elephant population is predicted to increase each year

1. What do you know about the problem?

2. What questions do you have?

3. Explain your reasoning or thinking in solving the problem.

Algebra I PARCC EOY Sample Assessment Item #2 (calculator): Standard F-IF.1

Jerome is constructing a table of values that satisfies the definition of a function.

Input	−13	20	0	−4	11	−1	17	
Output	−15	−11	−9	−2	−1	5	5	13

What number(s) can be placed in the empty cell so that the table of values satisfies the definition of a function?

Select **all** that apply.

- ☐ A. -5
- ☐ B. -1
- ☐ C. 0
- ☐ D. 2
- ☐ E. 11
- ☐ F. 17

1. What do you know about the problem?

2. What questions do you have?

3. Explain your reasoning or thinking in solving the problem.

Algebra I PARCC EOY Sample Assessment Item #3 (calculator): Standard S-ID.5

A random sample of 200 teenagers participated in a taste test. Each teenager sampled four choices of fruit drink (labeled "A", "B", "C", and "D"), and then were asked to pick a favorite. The table shows the results of this taste test.

	A	B	C	D	Total
Boys	45	25	30	20	120
Girls	25	10	30	15	80
Total	70	35	60	35	200

Based on the information given, which of the given statements are true?

Select **all** that apply.

- ☐ A. 40% of the participants were girls.
- ☐ B. 70% of the participants preferred "A".
- ☐ C. $\frac{20}{120}$ of the boys preferred "D".
- ☐ D. $\frac{10}{35}$ of the participants who preferred "B" were girls.
- ☐ E. The proportion of boys who preferred "C" is equal to the proportion of girls who preferred "C".

1. What do you know about the problem?

2. What questions do you have?

3. Explain your reasoning or thinking in solving the problem.

Algebra I PARCC EOY Sample Assessment Item #4 (calculator): Standard A-SSE.3a

Fill in the missing portions of the function to rewrite $g(x) = 3x^2 - 33x - 180$ to reveal the zeros of the function. What are the zeros of $g(x)$?

Enter your answers in the boxes.

$g(x) = 3(x +$ [ ] $)(x -$ [ ] $)$

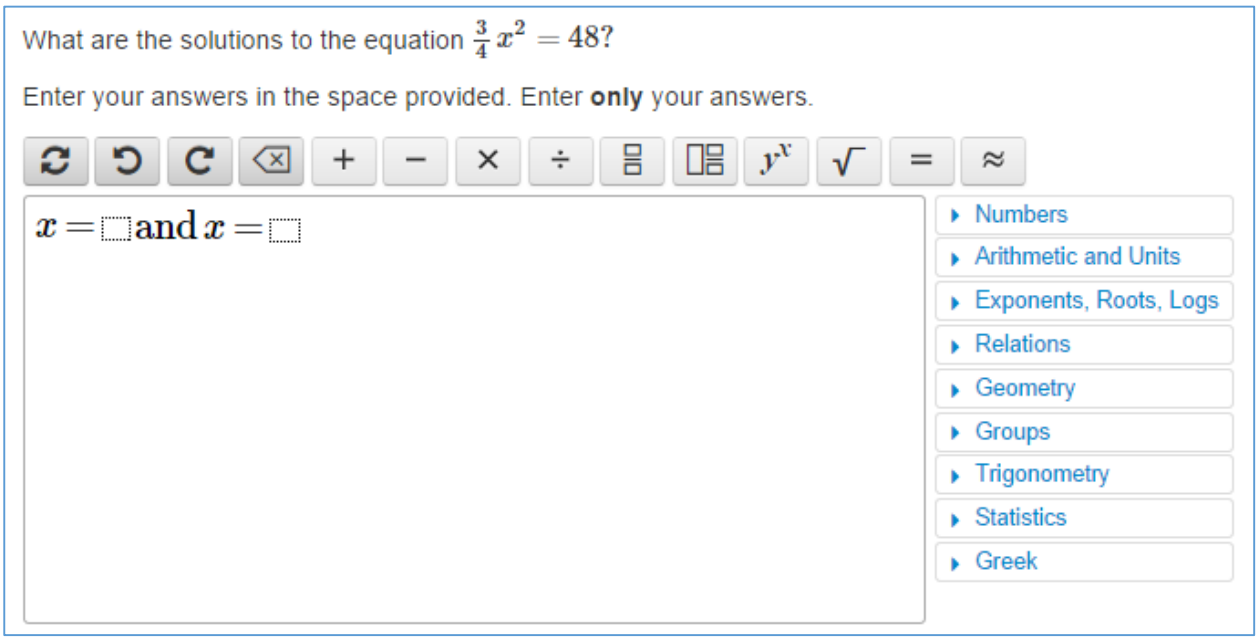
Zeros: [ ] and [ ]

1. What do you know about the problem?

2. What questions do you have?

3. Explain your reasoning or thinking in solving the problem.

Algebra I PARCC EOY Sample Assessment Item #5 (calculator): Standard A-REI. 4b-1



1. What do you know about the problem?

2. What questions do you have?

3. Explain your reasoning or thinking in solving the problem.

Algebra I PARCC EOY Sample Assessment Item #6 (calculator): Standard A-SSE.1-2

A ball was thrown upward into the air. The height, in feet, of the ball above the ground *t* seconds after being thrown can be determined by the expression $-16t^2 + 40t + 3$. What is the meaning of the 3 in the expression? Select the correct answer.

- A. The ball takes 3 seconds to reach its maximum height.
- B. The ball takes 3 seconds to reach the ground.
- C. The ball was thrown from a height of 3 feet.
- D. The ball reaches a maximum height of 3 feet.

1. What do you know about the problem?

2. What questions do you have

3. Explain your reasoning or thinking in solving the problem.