





2016 Mathematics Standards of Learning
Algebra Readiness Formative Assessment

6.13

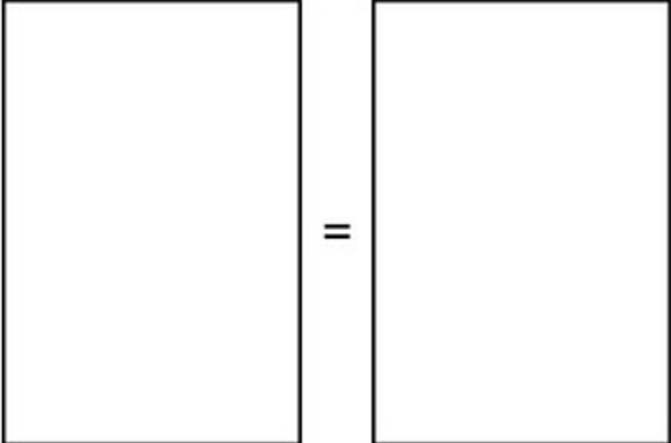
- Using the given key and equation mat, represent and solve the following linear equation algebraically. Then, confirm your solution.

$$d - 4 = -12$$

Key:

	= 1		= -1
	= d		= $-d$

Equation Mat



- Explain how to solve the algebraic equation and justify your answer.

$$p + 8 = 12$$

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3. Select the two methods that can be used to solve the algebraic equation.

$$-2x = 12$$

- Add -2 to each side.
- Multiply each side by -2
- Divide each side by -2.
- Add $-\frac{1}{2}$ to each side.
- Multiply each side by $-\frac{1}{2}$
- Divide each side by $-\frac{1}{2}$

4. Represent and solve the following situation as an algebraic equation.

Richmond City Schools provides 3 buses for a school field trip. If 72 students are going on the school field trip, how many students will be on each bus? Assume the students (s) are equally divided on each bus.

Algebraic Equation: _____

There will be _____ students on each bus.

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5. In the following expression, drag and drop the correct algebraic name:

The diagram shows the expression $-3m$ in the center. Two blue arrows point towards it from empty rectangular boxes above. One arrow points from a box on the left to the coefficient -3 , and the other points from a box on the right to the variable m . Below the expression are two rectangular boxes with labels: "Variable" and "Coefficient".

6. Identify three verbal statements that represent the expression below.

$$4n - 16$$

- The product of four and a number decreased by 16
- The quotient of four and a number minus 16
- Four times a number less than 16
- Sixteen less than four times a number
- The difference between four times a number and 16
- Four more than a number decreased by 16

7. How many terms are in the following expression?

$$7x^2 + 5x - 3$$

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8. Which method can be used to solve the algebraic equation below?

$$z - 6 = 13$$

- A. Subtract 6 from both sides of the equation
- B. Add 6 to both sides of the equation
- C. Subtract 13 from both sides of the equation
- D. Add 13 to both sides of the equation

9. How would you solve the equation below?

$$\frac{1}{3}x = -6$$

- A. Multiply both sides of the equation by $\frac{1}{3}$
- B. Multiply both sides of the equation by 3
- C. Divide both sides of the equation by 3
- D. Divide both sides of the equation by -6

10. Which solution will make the linear equation statement true?

$$13.75 = -2.5z$$

- A. $z = 5.5$
- B. $z = -16.25$
- C. $z = 16.25$
- D. $z = -5.5$