Algebra 1

Quick Questions

# Graphing Equations and Inequalities





Created by: Jessica Heitfield

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Quick Questions

# Thank You

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# **Quick Questions: Description and Instructions**

Quick Questions is an activity that helps students identify and correct common math misunderstandings! It is great for reviewing multiple concepts before a quiz or test. This activity can be used in many ways, and here are some ideas on how it can be used in class:

- 1. Each question in the activity has two answer choices: "Answer A" or "Answer B." There is one correct answer choice and one decoy answer choice.
- 2. Students can complete each question individually or in pairs. If they work individually first, they will have time to form opinions about each question so that when it is time to collaborate, there will be great discussions!
- 3. When working in pairs, asking students to try to "find all the correct answers together" will encourage collaboration. The opportunity for collaboration creates productive mathematical discourse.
- 4. Then, provide the answer key either in paper form or on the board and ask students which questions they would like you to go over!

#### **Error Analysis:**

Copy the "Error Analysis" page for students to write critically about the questions and explain the mistakes on selected questions. Teachers or students can choose the questions about which they will write.

#### Conceptual Learning:

Use the blank quick questions sheet for students to come with their own questions with correct answers and decoy answers using the Quick Questions activity as a reference! They can then trade sheets with a partner or another pair of students and complete each other's questions.

#### Other uses:

Quick questions could be used as a warm-up or exit ticket.

It could also be used as a section of a quiz or test.

It could be graded formally or informally.

# **Quick Questions #14: Graphing Equations and Inequalities**

Name: \_\_\_\_\_ Date: \_\_\_\_

	Choose "Answer A" or Answer B."	Answer A	Answer B
1	Which form is slope-intercept form?	y = mx + b	$y - y_1 = m(x - x_1)$
2	Which form is point-slope form?	$y - y_1 = m(x - x_1)$	ax + by = c
3	Which form is standard form?	y = mx + b	ax + by = c
4	Re-write in slope-intercept form: 3x + y = 10	y = 3x + 10	y = -3x + 10
5	Find the slope: $y = 2 - 5x$	2	-5
6	Find the slope: $y-4=-(x-2)$	-4	-1
7	Find the slope: $y = 11$	11	Zero Slope
8	Write the equation of a line that has a slope of 5 and a y-intercept of 2.	y = 5x + 2	y = 2x + 5
9	Write the equation of a line that has a slope of 1 and a y-intercept of 0.	y = x + 1	y = x
10	Write the equation of a vertical line that passes through the point (3, 0).	x = 3	y = 3
11	Write the equation of a line that has a y-intercept of 6 and is parallel to $y = 2x + 4$ .	y = 2x + 6	y = -2x + 4
12	Which equation will graph a horizontal line?	x = -2	y = -2
13	Which equation will graph a vertical line?	x = 3	y = 3
14	Which pair of lines are parallel?	y = 2x + 5 $y = -2x + 5$	y = 2 y = -2
15	Which pair of lines are perpendicular?	y = -x $y = x + 2$	y = 4x + 1 $y = -4x + 1$
16	Which statement is true?	5 < 5	5 <u>≤</u> 5
17	Describe the type of line for this inequality: y < 2x + 9	Dashed	Solid
18	For $y \ge 2x - 3$ , where is the graph shaded.	Above the line	Below the line
19	How can you check to see if the graph is shaded correctly?	Test a point on the line	Test a point in the shaded section
20	True or false: the points on a dashed line are solutions to an inequality.	True	False

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11	Write the equation of a line that has a y-intercept of 6 and is parallel to $y = 2x + 4$ .	y = 2x + 6	y = -2x + 4
12	Which equation will graph a horizontal line?	x = -2	y = -2
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14	Which pair of lines are parallel?	y = 2x + 5 $y = -2x + 5$	y = 2 y = -2
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19	How can you check to see if the graph is shaded correctly?	Test a point on the line	Test a point in the shaded section
20	True or false: the points on a dashed line are solutions to an inequality.	True	False

# **Quick Questions: Error Analysis**

Name:
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#	Write the Question	Analysis
		<ul> <li>A. Write the correct answer:</li> <li>B. Explain why it was correct and explain the mistake in the other answer.</li> </ul>
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		Write the correct answer:      Explain why it was correct and explain the mistake in the other answer.

## **Create Your Own Quick Questions!**

Name:		Topic:	
<ul> <li>Write your own quick questions!</li> <li>Use the original quick questions as a guide.</li> <li>Make sure that one of the answers is correct and the other one can be arrived by making a mistake.</li> <li>Remember to make an answer key as you work!</li> </ul>			
	Circle "Answer A" or "Answer B."	ANSWER A	ANSWER B
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Quick Questions Answer Key Use this to make your answer key.	Quick Questions Answer Sheet Use this to solve your partner's questions!
Topic:	Topic:
Name:	Name:
Date:	Date:
1	1
2.	2.
3.	3
4	4
5	5
6	6
7.	7.
8	8
9.	9.
10	10