

# NCTM Content Standards Assessment Rubric



## Algebra

Student's Name: \_\_\_\_\_ Assignment: \_\_\_\_\_ Level: \_\_\_\_\_

	Level 1	Level 2	Level 3	Level 4
<p><b>Understanding the Algebraic Concepts: Sorting, Patterning, Graphing, Equations and Quantitative Change</b></p>	<ul style="list-style-type: none"> <li>Demonstrates a limited understanding of Sorting, Patterning, Graphing, Equations and Quantitative Change</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates a basic understanding of Sorting, Patterning, Graphing, Equations and Quantitative Change</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates a good understanding of Sorting, Patterning, Graphing, Equations and Quantitative Change</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates a thorough understanding of Sorting, Patterning, Graphing, Equations and Quantitative Change</li> </ul>
<p><b>Applying Appropriate Technique, Tools, and Formulas to Solve Algebraic Problems</b></p>	<ul style="list-style-type: none"> <li>Demonstrates limited ability in using formulas to solve algebraic equations</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates some ability in using formulas to solve algebraic equations</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates satisfactory ability in using formulas to solve algebraic equations</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates strong ability in using formulas to solve algebraic equations</li> </ul>

SAMPLE

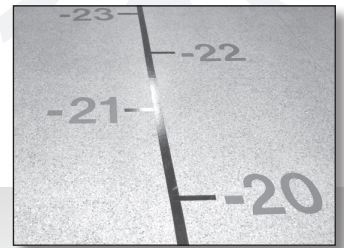
**NEXT STEPS:**

**WEAKNESSES:**

**STRENGTHS:**



# Task Sheet 5

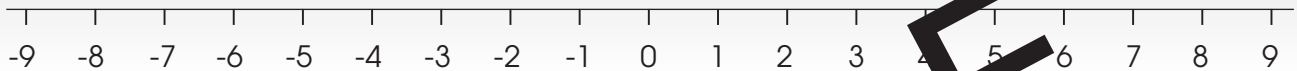


5) Graph each letter on the accompanying number line.

a)  $4 > x > -2$



b)  $8 \geq x > -8$



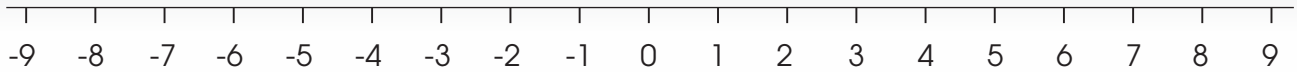
c)  $x = -2.5$     $y = 7$



d) On the number line below, graph the solution to  $x$ .    $x + 4 = -2$



e) On the number line below, graph the solution to  $x$ .    $-(-2) + x + 5 = 7$



SAMPLE

## Explore With Technology



Compare the answers given when you enter  $25 - 5 \times 3$ ...  
... On a scientific calculator =  
... On a basic calculator =



# Review A



a) Roberto gets a summer job working at Papa Pete’s Greaseless Hamburger Joint. He earns \$8 per hour, plus a \$25 bonus on his first day for having first aid training. Which equation best represents Roberto’s earnings (E) if h represents his hours worked?

- i)  $E = h(25 + 8)$       ii)  $E = 25h + 8$       iii)  $E = 25 + 8h$       iv)  $E = 25(h + 8)$

b) Solve the following. Show your work:

i)  $4 + x = 7$

Answer: \_\_\_\_\_

ii)  $c - 3 = 9$

Answer: \_\_\_\_\_

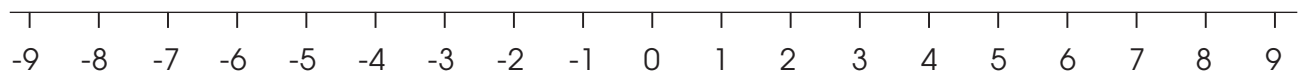
SAMPLE

c) The table below represents a pattern that increases when the same amount is added to each term. Provide the missing term values.

<b>Term Number</b>	1	2	3	4	5
<b>Term Value</b>	5	12		26	

d) Graph the letter on the accompanying number line.

$6 > x > -6$



# Term Value and Graphing



- a) A pattern that increases when the same amount is added to each term is represented in the table below. Complete the pattern.

Term Number	Term Value
1	
2	
3	
4	
5	

- b) A pattern that decreases when the same amount is subtracted to each term is represented in the table below. Complete the pattern.

Term Number	Term Value
1	
2	
3	
4	
5	

- c) Graph the following on the accompanying number line.

