

# Mathematics CFA Template

## Pre-Instruction

1. List the Standard. Underline the nouns (what students will know) and highlight the verbs (what student will do):

6.NS.7-**Understand** ordering and absolute value of rational numbers.

- Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret  $-3 > -7$  as a statement that  $-3$  is located to the right of  $-7$  on a number line oriented from left to right.*
- Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write  $-30^{\circ}\text{C} > -7^{\circ}\text{C}$  to express the fact that  $-30^{\circ}\text{C}$  is warmer than  $-7^{\circ}\text{C}$ .*
- Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of  $-30$  dollars, write  $|-30| = 30$  to describe the size of the debt in dollars.*
- Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than  $-30$  dollars represents a debt greater than 30 dollars.*

2. Mathematical Practices

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

3. I Can Statements – Put learning targets in student friendly terms.

- I can interpret statements of inequality as statements about the relative position of two numbers on a number line diagram.
- I can write, interpret, and explain statements of order for rational numbers in real-world contexts.
- I can understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation.
- I can distinguish comparisons of absolute value from statements about order.

Depth of Knowledge of the standard (Highlight the Level of the Learning Target):

Level 1 Recall; **Level 2 – Skill/Concept**; Level 3 – Strategic Thinking; Level 4 – Extended Thinking

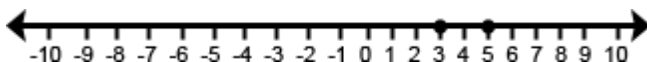
4. List the skills students need to know in order to begin this standard:

- Vocabulary-rational numbers, absolute value, inequality, number line, positive numbers, negative numbers, integers

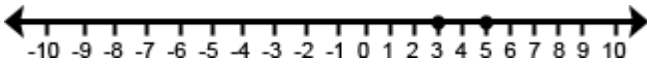
5. What type of assessment am I going to write? [selected response (m/c, t/f, y/n, matching, fill in \_\_\_) **or** constructed response (**short**: word, phrase, sentence, single problem; **extended**: multi-step operations in math, problem solving)] List the assessment questions.

Exit Tickets-Vocabulary and skills-matching- Working understanding of terminology  
Constructive response-short; few questions

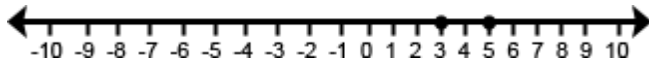
- Tell the relationship between 5 and 3 using an inequality.



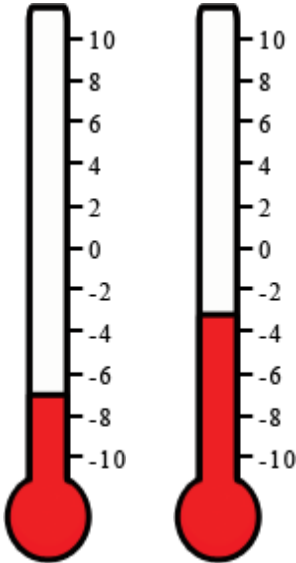
2. Tell the relationship between -3 and 3 using an inequality.



3. Tell the relationship between -5 and -3 using an inequality.



4. One of the thermometers shows  $-3^{\circ}\text{C}$  and the other shows  $-7^{\circ}\text{C}$ . Which thermometer shows which temperature? Which is the colder temperature? How much colder? Write an inequality to show the relationship between the temperatures and explain how the model shows this relationship.



## 6. Scoring Guide

**Exceeds Expectations:** Student answered 4 out of 4 using a detailed explanation of an inequality.

**Proficient:** Student answered 4 out of 4 using an explanation of an inequality.

**Approaching Proficiency:** Student answered 3 out of 4 using some knowledge of an inequality.

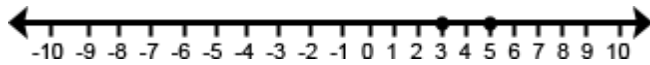
**Not Proficient:** Student answered less than 3 using little to no knowledge of an inequality.



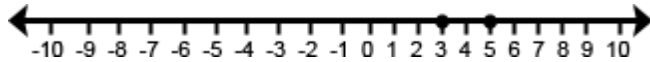
Name: \_\_\_\_\_

### 6.NS.7 – Formative Assessment

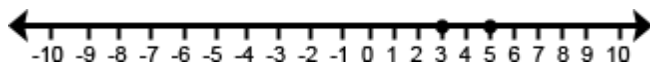
1. Tell the relationship between 5 and 3 using an inequality.



2. Tell the relationship between -3 and 3 using an inequality.



3. Tell the relationship between -5 and -3 using an inequality.



4. One of the thermometers shows  $-3^{\circ}\text{C}$  and the other shows  $-7^{\circ}\text{C}$ . Which thermometer shows which temperature? Which is the colder temperature? How much colder? Write an inequality to show the relationship between the temperatures and explain how the model shows this relationship.

