ipdae

INSTITUTE FOR THE PROFESSIONAL
DEVELOPMENT OF ADULT EDUCATORS

Expanding and Extending Learning Through a Community of Practice

www.floridaipdae.org

This training event is supported with federal funds as appropriated to the Florida Department of Education, Division of Career and Adult Education for the provision of state leadership professional development activities.

Welcome!

Anne Morgan
Adult Ed Coordinator
Pinellas County Schools

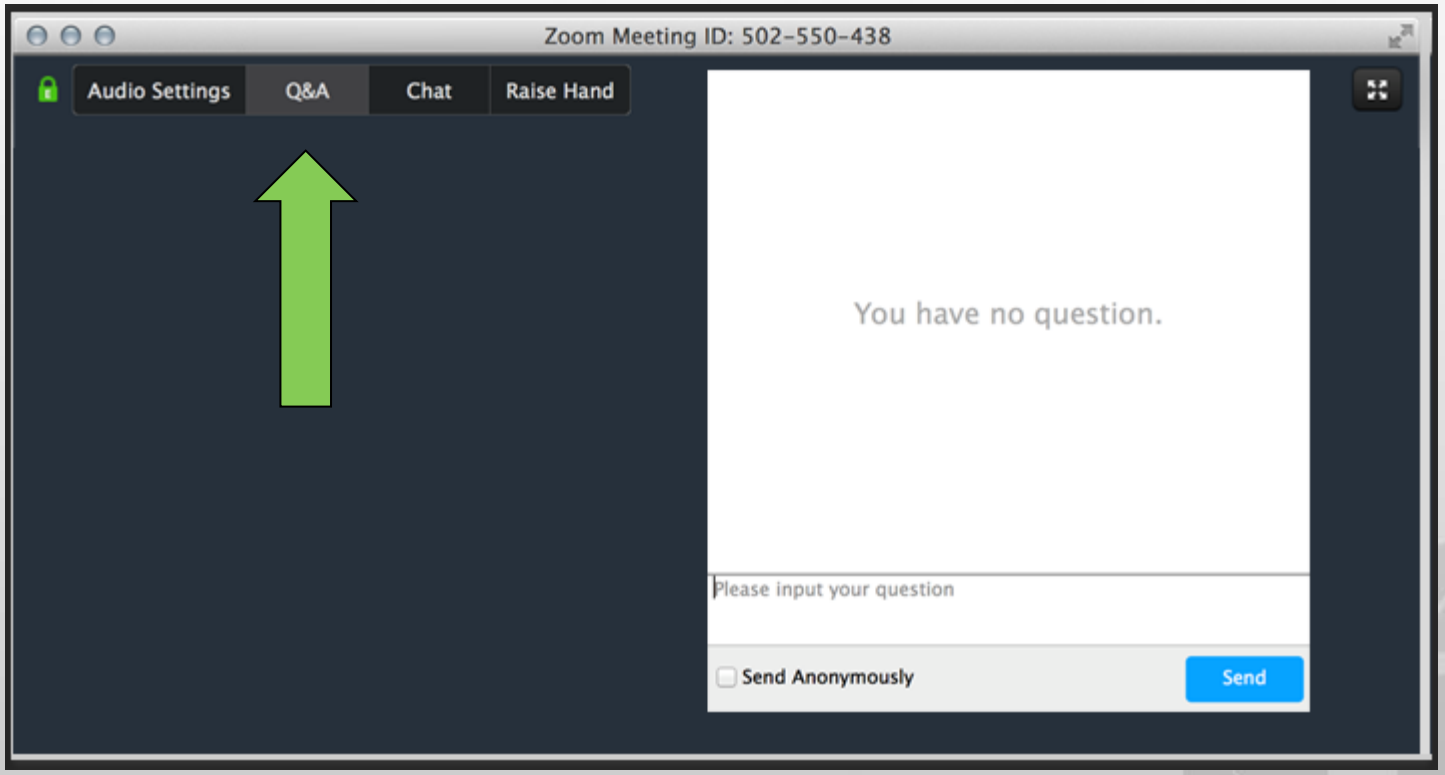
Objectives

In this session, we will explore:

- Expanding the effectiveness of professional development
- Process for creating a Community of Practice
- Resources and lesson plans targeting the Identified high impact indicators of the GED® 2014 exam

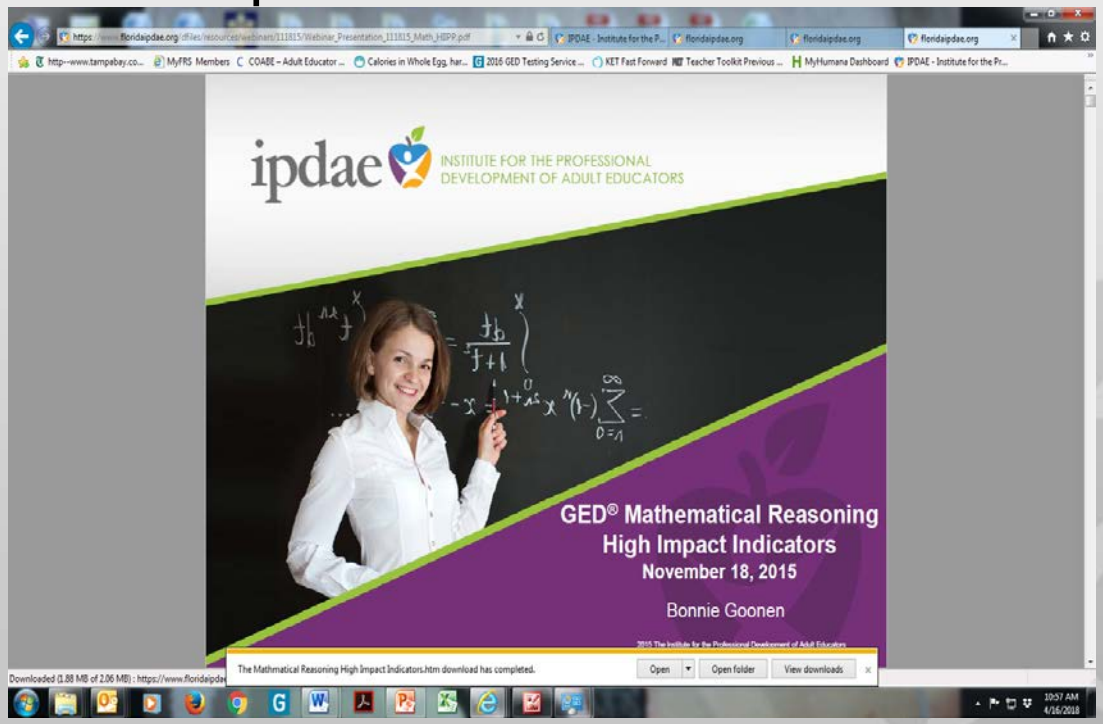
Webinar Things to Remember

- If you have a question, please type it into the **Q&A** option.

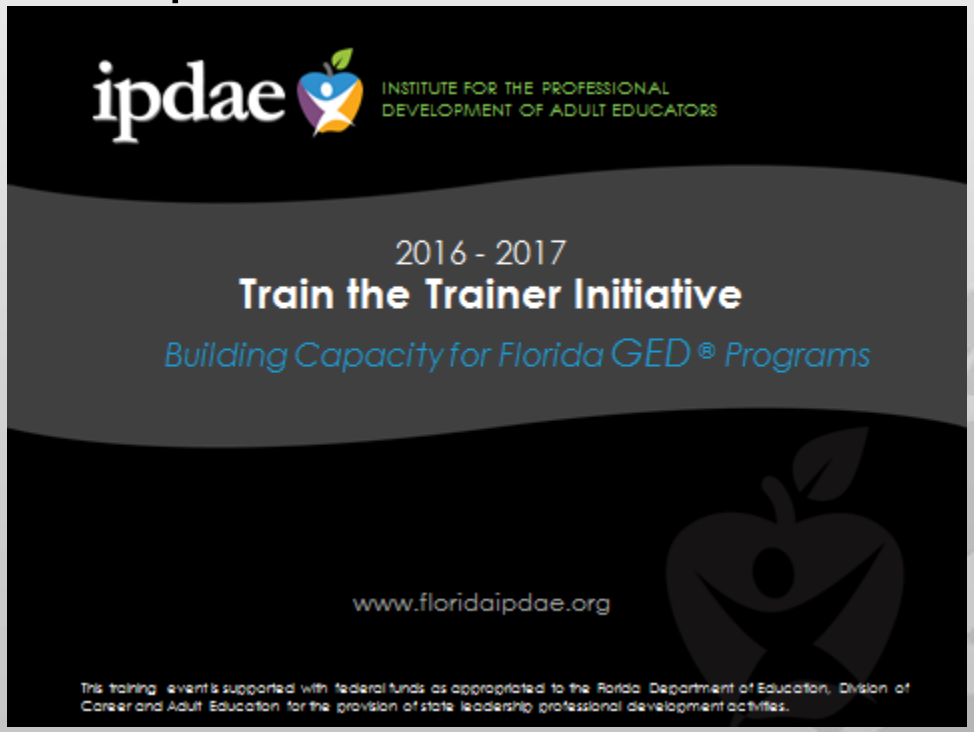


- Attendee microphones will be muted. You will be in **listen only** mode.
- Today's presentation is being **recorded**. It will be archived and available on the IPDAE website within 48 hours.

How can you expand the effectiveness of professional development?



How can you expand the effectiveness of professional development?



What is a Community of Practice?

Domain:

The area of shared inquiry and of the key issues- improving adult learners transition to post-secondary

Community Members:

Professionals committed to a process of collective learning oriented toward achieving outcomes and improving practice

Investigation:

Professionals committed to investigation of key questions, problems and gaps, identification of resources and expertise, sharpening of subject knowledge through professional learning and development of new resources, process, and methods

Continuous Improvement:

Reflection on practice, evaluation of impact and outcomes, ongoing inquiry, refinement of practice and methods, development of new resources.

- How do you recruit members to form a community of practice?
- What are the expectations?
- What do we hope to accomplish?
- What are the desired outcomes that will ultimately affect student learning?

Forming a team of professionals

- Familiarity with lesson plan creation
- Subject area expertise
- Ability to collaborate and communicate
- Demonstrated interest in improving practice and student outcomes

Expectations and Outcomes

- Face to face meetings
- Conference call
- Email communication
- Deliverables
- Lesson plan template
- Stipend

2016 - 2017 Community of Practice Project

Community of Practice Participants

Angelina Carroll

Cindy Glenn

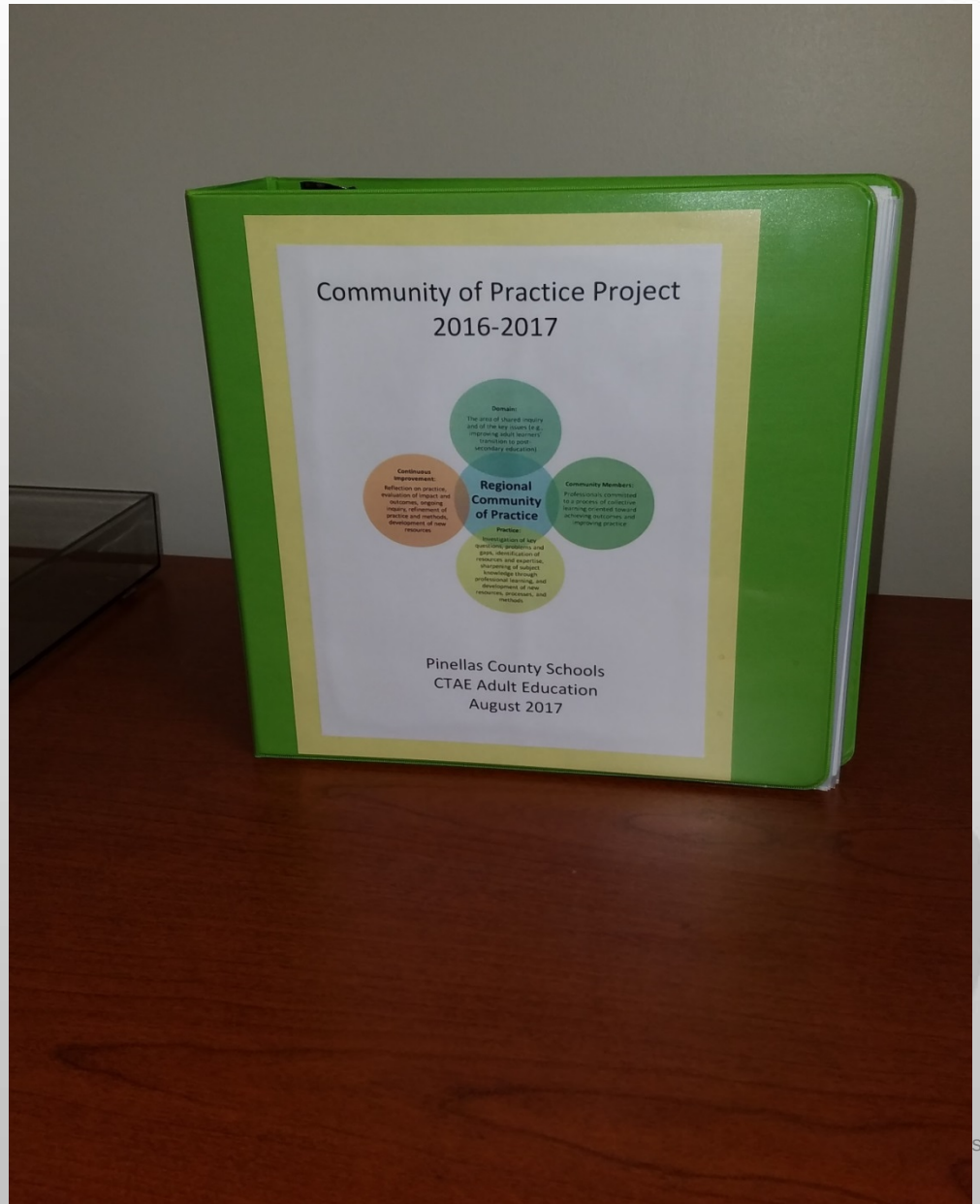
Mark Haverfield

Vicki Saenz

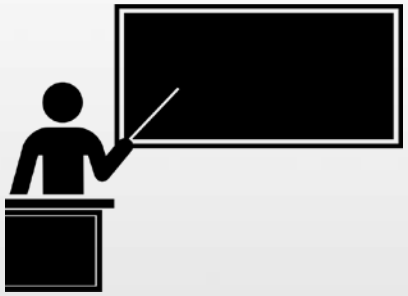
Cheryl Shaver

Maria Wallen

COP Lesson Plan Binder



High Impact Indicator Lesson Plan



High Impact Indicator Lesson Plan

Subject-
High Impact Indicator:
Materials:
Planning for vocabulary:
Planning for differentiation:
Formative assessment-Monitoring for learning:

Lesson Delivery

Connections to Previous Learning/real world	**Table Talk:**
Direct Instruction	
Modeled instruction	
Guided Practice	
Independent Practice Homework	

GED® Preparation Lesson Plan

Module: Mathematical Reasoning

Lesson Title: Ratios, Proportions, and Scale Factors in the Real World

Standards: (AGE) Curriculum Framework GED® Comprehensive Preparation- High Impact Indicator

Prerequisite Skills ABE Florida Curriculum Framework 2017-2018	Mathematical Reasoning 2014 GED® Assessment Targets Quantitative Problem Solving Standards and Content Indicators
Develop and understanding of ratio concepts and use ratio reasoning to solve problems. (CCR.MA.ABE.8.3.1) Explain ratio concepts and use ratio reasoning to solve problems (CCR.MA.ABE.8.4.1) Analyze proportional relationships and use them to solve mathematical and real-world problems. (CCR.MA.ABE.8.4.1)	Solve multistep , arithmetic, real-world problems using ratios or proportions including those that require converting units of measure (Q.3.c)

High Impact Indicators are:

- HII's are drawn from the GED Assessment Target indicators
- Useful for educators to emphasize in their instruction
- Are a good fit for classroom instructions, but may not be emphasized currently.

Mathematical Reasoning – High Impact Indicators

Assessment Target	Indicator	What to look for in student work: Students' work shows they have…
Q.1 Apply number sense concepts, including ordering rational numbers, absolute value, multiples, factors, and exponents	• Q.1.a Order fractions and decimals, including on a number line. • Q.1.b Apply number properties involving multiples and factors, such as using the least common multiple, greatest common factor, or distributive property to rewrite numeric expressions. • Q.1.c Apply rules of exponents in numerical expressions with rational exponents to write equivalent expressions with rational exponents. • Q.1.d Identify absolute value of a rational number as its distance from 0 on the number line and determine the distance between two rational numbers on the number line, including using the absolute value of their difference.	• converted fractions to decimals or vice versa in order to compare them, and listed the original numbers in ascending order. • identified common factors and calculated the greatest common factor by multiplying common factors, and has also identified common multiples, including least common multiples. • selected the appropriate rule(s) of exponents to apply to exponential expressions, and simplified exponential expressions using one or more rules of exponents. • identified the location of a rational number on the number line, created absolute value expressions to represent distances on the number line, and simplified absolute value expressions.
Q.3 Calculate and use ratios, percents and scale factors	• Q.3.a Compute unit rates. Examples include but are not limited to: unit pricing, constant speed, persons per square mile, BTUs per cubic foot. • Q.3.b Use scale factors to determine the magnitude of a size change. Convert between actual drawings and scale drawings. • Q.3.c Solve multistep, arithmetic, real-world problems using ratios or proportions including those that require converting units of measure. • Q.3.d Solve two-step, arithmetic, real world problems involving percents. Examples include but are not limited to: simple interest, tax, markups and markdowns, gratuities and commissions, percent increase and decrease.	• identified the relationship between quantities, then divided appropriately to determine the unit rate defined by those quantities. • created proportions to model problems involving scale, then calculated measurements using proportional reasoning, and has also calculated measurements using scale factors. • created proportions to model real-world problems involving ratios and proportions, and used ratios, proportions, and proportional reasoning to calculate quantities relating to those problems. • identified the relationships between quantities (including amount of change) in problems involving percent increase and decrease, and has calculated quantities stemming from those problems, as well as the amount of percent increase of decrease.

- A PowerPoint or video to introduce the content
- At least 2 activities with answer sheets
- Extension Activities
- Links to resources on hand
- Ideas for differentiating instruction for lower level students

Graphing Linear Inequalities

Prerequisite Skills ABE Florida Curriculum Framework 2017-2018	Mathematical Reasoning 2014 GED® Assessment Targets Quantitative Problem Solving Standards High Impact Indicator
Write, read, and evaluate expressions in which letters stand for numbers. (CCR.MA.ABE.6.3.1b) Solve an equation or inequality as a process of answering a question- which values, if any, make the inequality true? (CCR.MA.ABE.6.3.2a) Write an inequality of the form x>c or x<c to represent a constraint or condition- recognize that inequalities of the form x>c or x<c have infinitely many solutions; represent solutions on number line diagrams (CCR.MA.ABE. 6.3.2d)	Write, manipulate, solve, and graph linear inequalities (A.3) Identify or graph the solution to a one variable linear inequality on a number line (A.3. b)

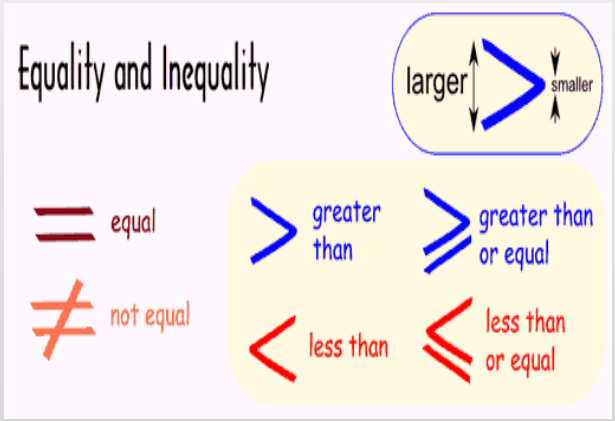
Lesson Objectives

- **Objectives of the Lesson**

  Students will:
- Review vocabulary related to the lesson and discuss real-world applications of inequalities
- Write each symbol <, >, ≤ , ≥ with words and math examples
- Identify one-variable inequality graphed on a number line
- Graph a one-variable inequality on the number line
- Write a one-variable inequality

Materials

- Prep Activities
- Skill review
- Vocabulary
- Video
- Websites
- Worksheets
- Extension Practice



Properties of Inequality Handout

Inequality Symbols :

- $>$ **Greater Than**
- $\geq$ **Greater Than or Equal To**
  (The line underneath the Greater Than sign indicates also Equal To.)
- $<$ **Less Than**
- $\leq$ **Less Than or Equal To**
  (The line underneath the Less Than sign indicates also Equal To.)

Graphing Inequality Symbols :

- **Greater Than**
  (The open circle indicates that this is NOT EQUAL TO the number that is graphed.)
- **Greater Than or Equal To**
  (The closed circle indicates that this is EQUAL TO the number that is graphed.)
- **Less Than**
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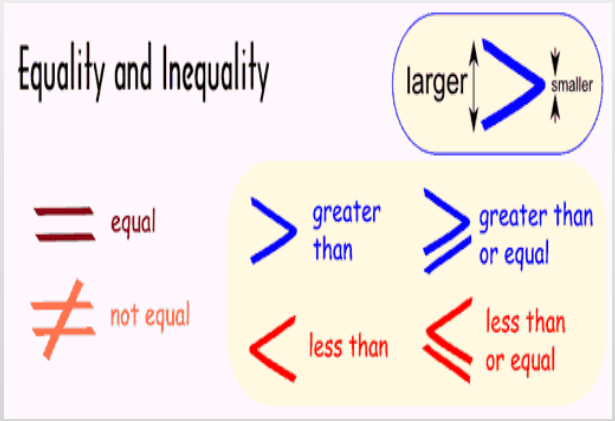

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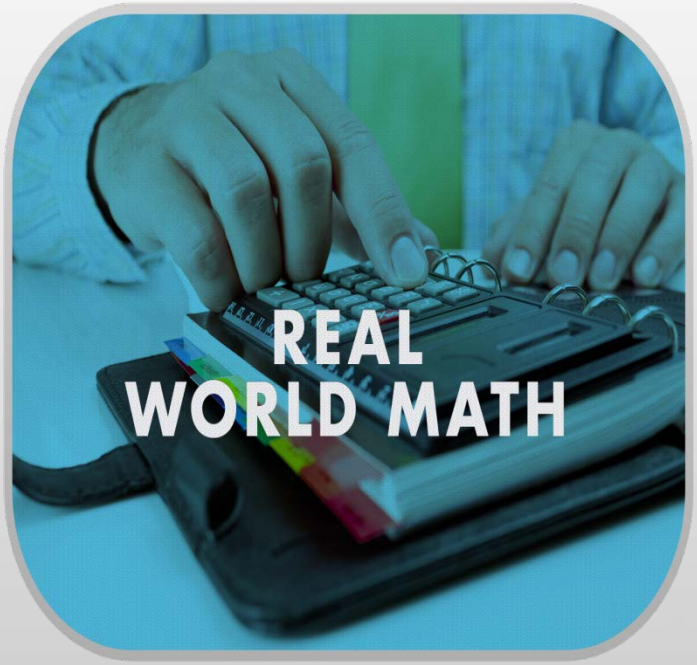
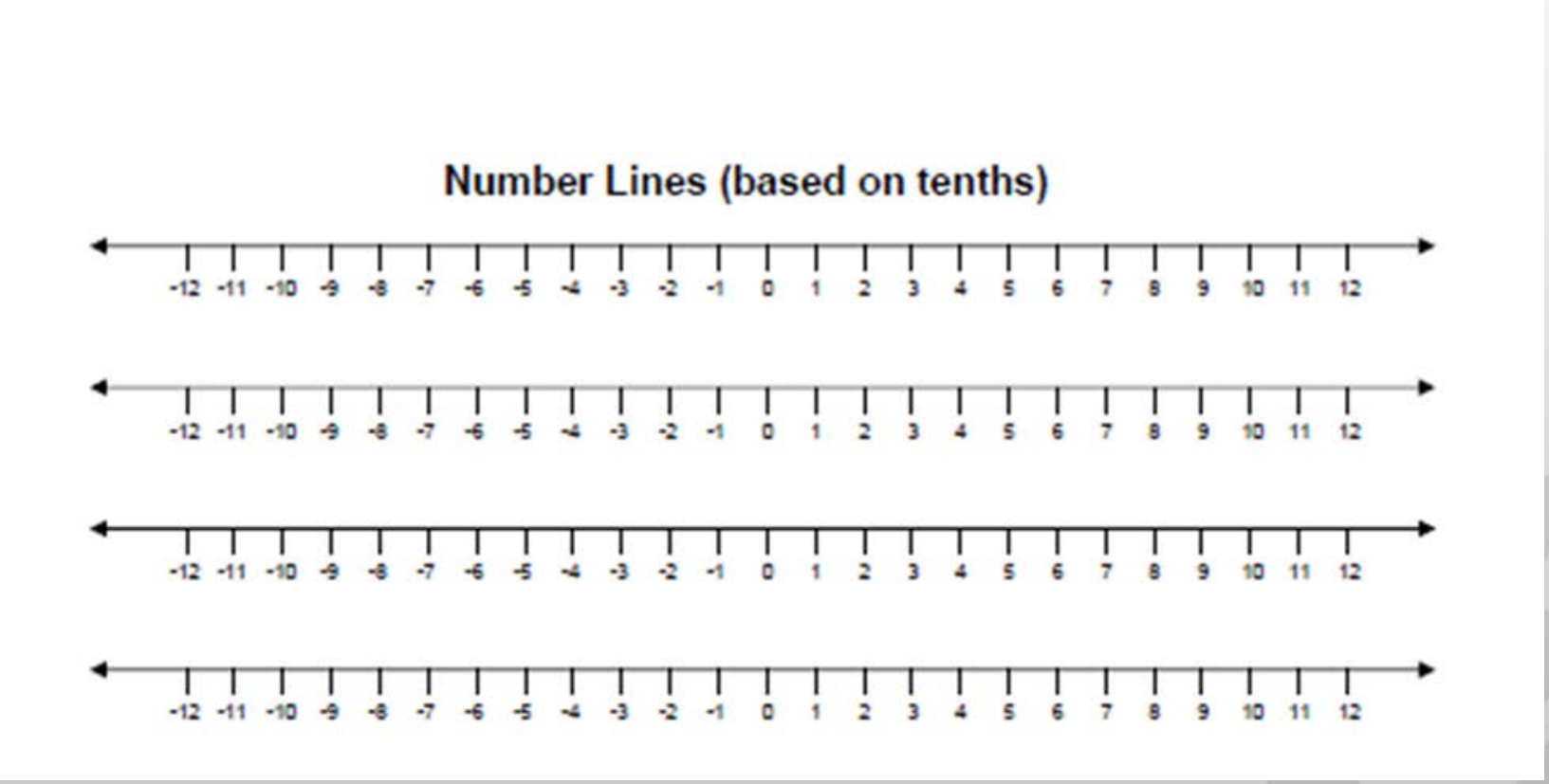
The Real World Connection



- Brainstorm ideas and scenarios
- Connection to the students' lives
- When would we use inequalities in real life?

Let's Get to Work!



Identifying Graphs

Identifying Graphs

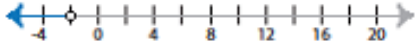
Sheet 1

Choose the correct graph that best describes each inequality.

1) $x \geq -2$

a) 

b) 

c) 

d) 

2) $x < 3$

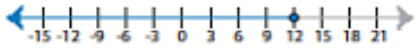
a) 

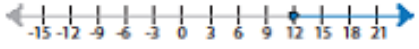
b) 

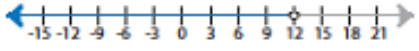
c) 

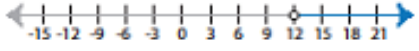
d) 

3) $x > 12$

a) 

b) 

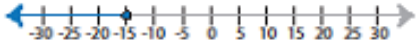
c) 

d) 

4) $x \leq -15$

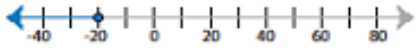
a) 

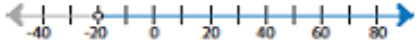
b) 

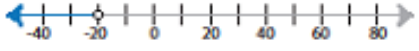
c) 

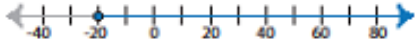
d) 

5) $x < -20$

a) 

b) 

c) 

d) 

6) $x \leq 8$

a) 

b) 

c) 

d) 

Practice, Practice, Practice

Writing Inequalities

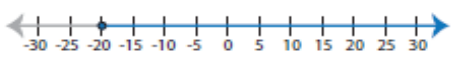
ES1

Write the inequality that best describes each graph :

1)

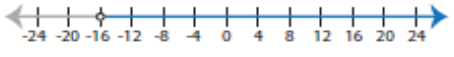
Inequality : _____

2)



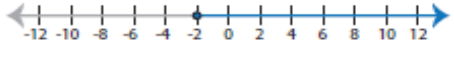
Inequality : _____

3)



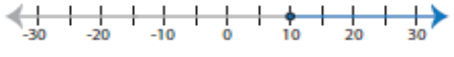
Inequality : _____

4)



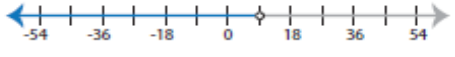
Inequality : _____

5)



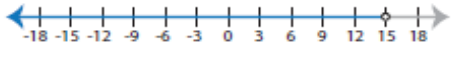
Inequality : _____

6)



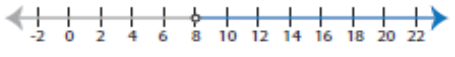
Inequality : _____

7)



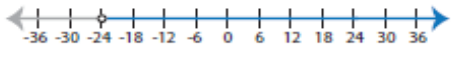
Inequality : _____

8)



Inequality : _____

9)



Inequality : _____

10)

Inequality : _____

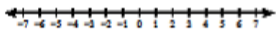
Printable Math Worksheets @ www.mathworksheets4kids.com

Kuta Software - Infinite Algebra 1 Name_____

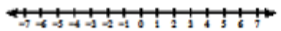
Graphing Inequalities Date_____ Period____

Draw a graph for each inequality.

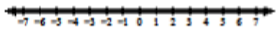
1) $n \leq -5$



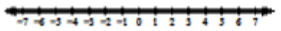
2) $n \leq 5$



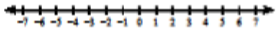
3) $x < 1$



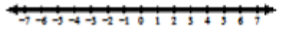
4) $r > 2$



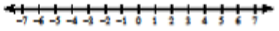
5) $n > 5$



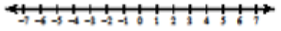
6) $r \leq -2$



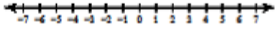
7) $k \leq -2$



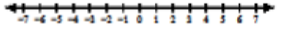
8) $m < -5$



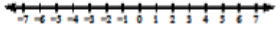
9) $x \geq 2$



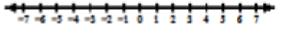
10) $-5 \geq v$



11) $-2 \geq v$



12) $x < 5$



Graphing Inequalities – Answer Key

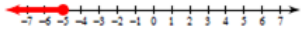
Worksheet Created at Kutasoftware.com - https://www.kutasoftware.com

Kuta Software - Infinite Algebra 1 Name_____

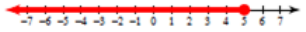
Graphing Inequalities Date_____

Draw a graph for each inequality.

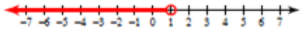
1) $n \leq -5$



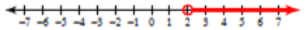
2) $n \leq 5$



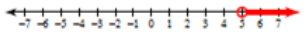
3) $x < 1$



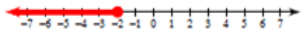
4) $r > 2$



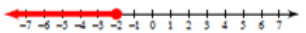
5) $n > 5$



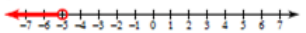
6) $r \leq -2$



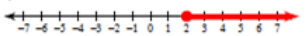
7) $k \leq -2$



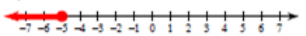
8) $m < -5$



9) $x \geq 2$



10) $-5 \geq v$



11) $-2 \geq v$

12) $x < 5$

Don't Forget to Debrief

- How are inequalities and equations different?
- Give a real world example using an inequality.
- Explain the difference between an open circle and a closed circle on a graphed inequality?
- Using a number line graph an inequality with a negative number ex: $x > -6$ or $x \leq -5$
- Write a one-variable inequality

Extensions for Learning

- Throughout lesson, check for progress
- Utilize additional resources at different skill levels
- Bring the lesson back to the real world

High Impact Indicators

- Science: Forming a Conclusion
- Social Studies: Systems and Forms of Government
- RLA: Using Transition Words to Improve your Writing

Insert slide(s) that highlight IPDAE resources that relate to the presentation, as well as upcoming events/materials

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