



## Venn Viewpoint

The set contains 8 colorful label cards and 1 mat.

Review the terms on the cards.

Place the terms in the Venn diagram where they best fit.

Be prepared to defend card placements and explain the relationships of the terms.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Irrational Number Match Up

The set contains 72 cards.

Form matching sets of 4 cards.

- An irrational number written as a square root
- An inequality comparison of the approximate positive value of the number
- The approximate positive value of the number to the tenths place
- A number line showing the approximate location for the positive value of the number
- Try some starting with the inequality statement cards and working backward to match the irrational number.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Scientific Notation Match

The set contains 30 cards.

Review the set of cards.

- Note that the center of each card shows a target number surrounded by four possible translations of the number into the opposite form.
- Identify the correct equivalent on each card that matches the target number and record the matches.
- Be able to explain why the other three options on the cards are incorrect.
- After the correct forms are determined, order the cards according to the target number from least to greatest.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Real Number Round Up

The set contains 36 cards.

Review the set of cards.

- Use the given numbers on each card.
- Compare the numbers on the cards.  
Order the cards based on value from least to greatest.
- Use a math journal or notebook paper to record your work.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Slope Triangles

The set contains 20 green cards.

- Review the graph cards showing lines with slope triangles.
- Find two cards that show the same slope.
- Then match each pair of graph cards to a fraction card that shows their slope in simplest form.
- Prove these two lines have the same slope by using equivalent rates.
- Once all the graph cards are matched and paired with a fraction card, then find the corresponding equation card for each line graphed.
- Discuss how the slope of the line is represented in the equation.
- Explain where the value of the constant addend in the equation can be found on the graph.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Slope 4 Ways

The set contains 1 mat and 24 colored cards.

Review the set of cards and the mat.

- Find the 4 cards that all illustrate a common slope value.
- Place them in the row on the mat next to their appropriate slope value under the correct headings.
- When your mat is completed ask for a teacher check.
- Record in your math notebook or notebook paper the meaning of slope and how to determine slope from the various types of representations.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Proportional or Not?

The set contains 1 mat and 32 colored cards.

Review the set of cards and the mat.

- Discuss and decide how each card should be classified on the sorting mat.
- Discuss the attributes of a proportional situation versus a non-proportional situation including how each differs using various representations.
- Create a foldable, use a math notebook, or notebook paper to define characteristics of proportional situations and those that are not proportional.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Direct Variation Display

The set contains 48 cards.

Review the set of cards.

- Match each word problem with a solution card.
- Find the graph and equation cards that match each solution.
- Complete the following sentence frames after matching all the cards.
  - In a direct variation situation, the ratio of  $\frac{y}{x}$  is always \_\_\_\_\_, the graph will form a \_\_\_\_\_ line. The \_\_\_\_\_ point (\_\_\_\_, \_\_\_\_), is always included in the solution set.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Function Five

The set contains 1 mat and 15 colored cards.

Review the set of cards and the mat.

- Organize the cards under the headings on the mat to show the matching sets of function cards.
- All the cards on a row should represent the same function.
- Be prepared to explain how each form represents the same function.
- Add a question to each verbal situation and solve for the value in your question using the function rule. Show your solution on a table and a graph.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Linear Mystery

The set contains 1 mat and 39 yellow cards.

Review the set of cards and the mat.

- Each mat contains 4 sets of cards representing a linear relationship.
- Some of the sets represent proportional relationships and some non-proportional relationships.
- The mats show a clue in each row.
- Find the matching cards that represent other forms of the same relationship and place them in the spaces for that row.
- Identify which rows represent a proportional relationship. Explain how you know.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Function or Not?

The set contains 1 mat and 32 colored cards.

Review the set of cards and the mat.

- Discuss each card and determine how each should be classified on the sorting mat.
- After sorting define characteristics of a function and those of a non-function.
- Record function and non-function characteristics in a foldable or in your math journal.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Graphing Simultaneous Equations

The set contains pink, yellow, and white cards

Review the set of cards.

- Place the pink equation cards face down.
- Randomly draw 2 of the equation cards.
- Locate the graph card showing both equations.
- Determine the coordinate point that lies on both graphed lines and equations. Locate the yellow card.
- Repeat above with 2 additional pink cards.
- If time, create your own graph showing two lines that intersect. Note the intersection point. Write the equations of both lines satisfied by this point.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Partner Pack: Translating Equations

The set contains 24 pastel cards and a separate record sheet for the scavenger hunt, and 30 red and blue cards.

### **Scavenger Hunt Activity:**

- Review and solve the problems on the lettered pastel colored cards.
- Use the scavenger hunt recording sheet to note 2 lettered cards that match each statement.

### **Matching Activity:**

- Translate the statements on each card.
- Find matching pairs of red and blue cards.
- For each pair, solve the inequality and graph the result on a number line. Record in your notebook.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Situation Translation

The set contains 1 mat, 10 situation cards, and 10 yellow cards.

Review the set of cards and the mat.

- Discuss the equations or inequalities on the mat.
- Find a situation card represented by each problem on the mat.
- Review the questions on each situation card.
- Use the equation or inequality to solve and place the appropriate yellow card.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Prove it! Algebraic Properties

The set contains 1 mat and 28 yellow card strips.

Review the set of cards and the mat.

- Place the equation card strips to complete each problem on the mat.
- Use the property strips to justify the reason each step is appropriate mathematically.
- Create your own proof puzzle using an equation of your choice.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Problem Process Strips

The set contains 4 sets of card strips in 4 colors.

Review one set of card strips (one color).

- Sequence the card strips in the bag to show the order of steps in the solution process.
- Record the process in your math notebook or on paper.
- Repeat with the other colored sets of strips.
- Note that some sets of strips contain incorrect strips.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Solution Sequence

The set contains 1 mat and 19 green card strips.

Review the problems on the mat and the card strips.

- Discuss and sequence the card strips in the correct order to solve each equation on the mat.
- Record key information in your notebook or on paper.
- Create your own equation and card strips using construction or colored paper and trade with a partner to sequence. Try adding extra incorrect strips.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Line Up! Solving 1-Variable Equations

The set contains 30 colored equation cards.

Review the problems on the cards.

- Solve each equation card for the variable  $n$ .
- Use paper to record your solutions and the letters on each card.
- Order or “line up” the cards according to the solutions from least to greatest.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Angle Detectives

The set contains 1 mat and 12 blue cards.

Review the triangle images on the mat. Images are not drawn to scale.

- Determine the measure of the angle marked with a  $?\circ$  for each triangle.
- Find the matching degree measure card and place on top of the space on the mat.
- Have your teacher check your work.
- Discuss strategies used to find the missing angle measures.
- Record information in your notebook or a foldable about the Angle Sum Theorem and the Exterior Angle Sum Theorem of a triangle.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Angles & Intersecting Lines

The set contains 5 mats and a set of green angle cards. A recording table is also provided.

Review the problems on each mat in order, one at a time.

- Describe the properties of the lines and angles created on the mat.
- Determine pairs or sets of congruent angles formed by the lines. Use angle cards to represent sets of congruent angles.
- Explain how angles are congruent referencing the type of angles formed.
- Determine supplementary and complementary pairs.
- Record answers on the data table.
- Discuss patterns found in angles produced by parallel lines cut by a transversal.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Are they Similar?

The set contains 1 mat and 12 green triangle pair cards.

Review the triangle images on the cards. Images are not drawn to scale.

- Determine if the triangles are similar using angle properties.
- Use the sorting mat to organize the cards as similar or not similar.
- Discuss how the angle-angle criterion for similarity is used to determine similarity in each pair of triangles.
- Create a foldable or make notes about triangle properties including the angle-angle criterion.
- Create one pair of triangles that could be added to the set.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Cylinder Capacity Connection

The set contains 52 purple cards.

Review the provided cards.

- Form matching sets of 4 cards.
  - A labeled cylinder
  - The approximate base area (3.14 for  $\pi$ )
  - The volume formula with the height substituted.
  - The approximate volume using the base area and height.
- Try beginning with volume and formula cards or with volume and base area to solve for a missing value.
- Generalize the formulas and solving processes and record in your notebook.
- Play Go Fish using the cards if time allows.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Find My Measurement Formula

The set contains 26 white, 18 pink, 24 yellow, and 26 green cards.

Review the scenario cards one at a time.

- Discuss and select a yellow formula card used to solve the scenario problem.
- Discuss and select a pink drawing card to represent the problem.
- Solve the problem and select a matching green card.
- Pink and yellow cards can be used more than once.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups

### Measurement Mix Up: Volume & Surface Area

The set contains 2 mats and 24 purple cards.

Review the information on the mat and the card set.

- Find the volume, lateral surface area, and total surface area cards for each figure shown on the mat.
- Use a math formula chart if needed for reference.
- Answer cards are rounded to the thousandths as appropriate.
- Use 3.14 for  $\pi$  in computations.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups Surface Area Search

The set contains 6 color scenario cards and 17 yellow puzzle cards.

Read and discuss the scenario problems.

- For each scenario identify a diagram image, a formula, and the solution.
- Use the 17 yellow cards to construct a puzzle. Find 4 triangular parts that relate to the same scenario. Place these 4 parts together as a square.
- Continue matching 4 triangular corners into square sections.
- When all squares are placed correctly a phrase will be spelled around the outside of the puzzle.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups Modeling the Pythagorean Theorem

The set contains 15 colored square grid cards.

- Find 3 square models cards that when combined, the sum of 2 of the area cards is equal to the area of the 3rd card.
- Find as many of these Pythagorean triples as possible using the model cards and record the results.
- Discuss how the area of each card relates to the Pythagorean Theorem equation:  $a^2 + b^2 = c^2$
- Discuss the types of triangles formed when  $a^2 + b^2 = c^2$ , when  $a^2 + b^2 > c^2$ , and when  $a^2 + b^2 < c^2$ .

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups Pythagorean Match

The set contains 24 cards.

Read and discuss the scenario problems.

- Match a green drawing card with each scenario card to represent each problem situation.
- Draw and label all parts of the drawing card with relevant information on notebook paper or in your math journal.
- Work the problem on paper or in your notebook and respond to the question in the scenario by writing the answer in a complete sentence.
- Choose the correct pink answer card to match to each set.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups Pythagorean Distances

The set contains 40 orange cards.

Read and discuss the information on the cards.

- Form matching sets of 4 cards containing:
  - 2 given points
  - A graph of the problem
  - A formula card representing the solution equation
  - A solution card
- Record information about how the Pythagorean Theorem, or the relationship between the legs and hypotenuse of a right triangle, is used to determine distance on the coordinate plane.
- Create your own set of 4 cards to add to the set.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups The Great Graphing Game

The set contains 1 game mat and 48 pink cards.

- Set up a 4-quadrant diagram on notebook paper.
- Place the board in the center. Shuffle the cards and place face down in the center.
- Place your pawn on the origin. Draw a card and move your pawn based on the transformation or the ordered pair on the card.
- Record the ordered pair in the correct quadrant on your paper.
- Each player takes turns moving to the next point based on the card instructions, recording points as you play.
- The first player to record 3 points in all 4 quadrants wins.
- If a point is off the game board, record it as normal and start at the origin on your next turn.
- If a move is not possible, explain why and draw another card.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups Always, Sometimes, Never True: Transformations

The set contains 1 mat and 20 orange statement cards.

Read and discuss each of the statement cards.

- Sort the cards onto the mat as to whether the statement is **always** true, **sometimes** true, or **never** true.
- Have your teacher check your work.
- Use a foldable or your math journal to record attributes of transformations including how each preserves congruence and orientation.
- Select 1 card for each column and justify its placement. On the sometimes card, explain why it is not always true.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups Dilation Dilemma

The set contains 4 mats and 52 cards.

Read the figure on one mat.

- Based on the figure determine the area or perimeter (as applies) for the figure shown.
- Find cards matching the dilations of the given figure for each scale factor on the mat.
- Determine perimeter/area of each dilation.
- Match a card showing the ratio relationship of the dilation and the original figure.
- Discuss how to complete the statements at the bottom of the mat.
- Rotate through the other 3 mats.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups Bivariate Data Relationships

The set contains 1 mat and 30 cards.

Review the situations presented on the mat.

- Match a table of data to each scenario to represent the data.
- Match a scatterplot to the data, table, and situation.
- Discuss the variables represented by the x- and y-axes of the graph and the input/output of the table.
- Determine if the data set represents a linear association, non-linear association, or no association.
- Discuss how you used the representations to determine the association.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.



## Math Cut Ups Trend Line Scavenger Hunt

The set contains 15 situation cards and 15 green answer cards.

Read and discuss the scenario problems one at a time.

- Solve the problem on one scenario card.
- Find a lettered card in the set that matches the solution.
- Record the number of the problem card and the letter of the solution card together.
- Rotate to a new scenario and repeat until all 15 are completed.
- Order problem cards and record the solutions in their order for a special phrase.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups MAD About Data

The set contains 12 situation cards and 24 purple answer cards.

Read and discuss the scenario problems one at a time.

- Determine the mean of the data for each situation and find the matching solution card.
- Determine the mean absolute deviation for each situation and find the matching solution card.
- Have the teacher check your work.
- Record information about how to determine the mean or mean absolute deviation of a data set and how each describes the data.
- Pick a mean or MAD and create a data set to fit.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups The Costs of Credit

The set contains 1 mat and 32 answer cards.

Read and discuss the scenario problems on the mat.

- Calculate the total cost of each option for each situation. Find the cards that contain these calculated costs and place on top of the option spaces on the mat.
- Find the card that represents the decision between the options and the savings difference between them and place in the last mat column.
- There are more cards than needed for the mat.
- For the purpose of the activity, only total loan cost with interest is considered and not any repayments.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

## Math Cut Ups Would You Rather?

The set contains 24 cards.

Get into a small circle and select one player to start.

- Place cards face down in the center of the group.
- The starting player draws the top card and asks the other players the “Would you Rather...” question.
- All players calculate the 2 options and determine the best answer.
- The first player to respond AND correctly state the reason based on the difference in the options wins a point.
- In the case of a tie, the best explanation wins.
- Pass play to the right to take turns asking/answering.
- Players may use a handheld calculator if needed.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.

The set contains 4 situation cards and 12 blue answer cards.

Read and discuss the scenario problems one at a time.

- Solve the 3 problems on each scenario card and select the matching blue answer cards for each question.
- Check your answers with your teacher.
- Repeat for all 4 scenario cards.

Complete the reflection sheet for the station and record any notes about the concept in your math journal.