

Over there!

An Out-of-Your-Seat Math Review

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Grade 7

Correlations to the Math Standards

	Ratios and Proportional Relationships	
7.RS.A	Analyze proportional relationships and use them to solve real-world and mathematical problems.	Module 7.1
	The Number System	
7.NS.A	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	Module 7.2 Module 7.4
	Expressions and Equations	
7.EE.A	Use properties of operations to generate equivalent expressions.	Module 7.3
7.EE.B	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	Module 7.1 Module 7.2 Module 7.3 Module 7.4
	Geometry	
7.G.A	Draw, construct, and describe geometrical figures and describe the relationships between them.	Module 7.5 Module 7.6
7.G.B	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	Module 7.5 Module 7.6
	Statistics and Probability	
7.SP.A	Use random sampling to draw inferences about a population.	Module 7.7
7.SP.B	Draw informal comparative inferences about two populations.	Module 7.7
7.SP.C	Investigate chance processes and develop, use, and evaluate probability models.	Module 7.7

Getting Started with *Over There!*

Welcome to *Over There!*

Congratulations on your purchase of *Over There!*

Over There! is a whole-class, out-of-your-seat math activity that promotes collaboration between students and reinforces the idea of solving problems through “mental math.”

This box contains:

1. Grade 7 activity cards organized by the 5 domains of the Math Standards.
2. This booklet, which includes,
 - Correlations to the Grade 7 Math Standards
 - The Getting Started with *Over There!* pages for the teacher.
 - Recording Sheet reproducible student blackline master
 - Show Your Work reproducible student blackline master (optional)
 - Answer sheets for the teacher

Over There! asks students to apply the math skills they have acquired in class in a whole new context. In doing so, they learn to work collaboratively with their peers to solve the questions. By verbalizing the math with their peers, students are better able to comprehend the solution and improve their “mental math” skills.

How to Use *Over There!* in Your Classroom

These activities can be used as a unit review for the end of the week, or after the class has been given instruction on that particular topic.

These activities can also be administered prior to teaching a topic within the math curriculum. If used in this way, the activity can function as a gauge to determine how well the class understands a particular skill or skills.

The cards are sturdy and are printed with a special coating, so they can be taped to the wall, although many teachers may opt to display the cards on desks

at the front of the room or even on the ledge of the blackboard or whiteboard.

The cards should be distributed around the room and faced so they can be seen by the students. This way the student pairs can move around to find the card whose answer matches the question on the card they are holding.

Make sure there are no obstacles on the floor that could impede students’ movement or cause injury.

Getting Started

1. Put the students into pairs or threes. Then, have students file to the front of the room.
2. Distribute one copy of the Recording Sheet and one or more copies of the (optional) Show Your Work sheet to each pair. Decide which teammember will fill out each of these sheets.

Note: The Answer sheets at the back of this booklet are intended for the teacher's use only.

3. Give a brief description of the activity and how the cards work:

“Each card is numbered clearly. It has a question at the top and an answer at the bottom.

Remember, the answer to the question on the top of the card is on a totally different card. You must find the card with the correct answer. If you have played ‘I Have, Who Has?’ you are familiar with this idea.”

Then say, *“We will have one pair begin the game by reading their assigned card. Read the ‘Question’ part of the card at the top. Discuss with your partner. Many of these problems are ‘mental math.’ For word problems, it may be necessary to work out the answer on the Show Your Work sheet. Once you know the answer, go around the room to find the card with that answer written on the bottom of the card.*

“Write the correct answer in the Team Answer column of the sheet. Then, read the question on that card and

find the card that has the correct answer. Once you've completed all the cards, you can return to your seats."

Before students begin, assign each pair their "start card," making sure each pair starts with a different card.

Example:

1. The first pair goes to Card 3 and reads the question at the top. The pair discusses the question and works out the math on the Show Your Work sheet if appropriate. One student writes the answer on the Recording Sheet.

Card 3

?

There are 4 red marbles, 7 blue marbles, and 10 green marbles.
Write the ratio of blue marbles to red and green marbles.

!

40:1

2. Then, students say: "Where is 1 to 2?" (Partner or classmates answer and point: "Over There!")
3. Pairs go around the room to find the card that has the answer (the answer will be at the bottom of the card—in this case, it is Card 2).
4. Students then read the question at the top of Card 2 and repeat all the steps as in Card 3.

Card 2

?

There are 4 red marbles, 7 blue marbles, and 10 green marbles.
What is the ratio of red marbles to blue marbles?

!

1 to 2

5. All pairs follow in the same fashion until the whole class is engaged in the activity. The teacher is there to make sure the pairs are working in a (somewhat) orderly way.
6. All pairs should record their answer on the Recording Sheet, including the names of pairs members.
7. They also complete the Show Your Work sheets if required.
8. When all students have completed the activity, the teacher asks some questions to elicit discussion, such as:

"Did anyone have difficulty finding the answer to any of the cards?"

"Which one?"

"What strategy did you use for solving the problem?"

9. If necessary, write some notes on the board to illustrate the students' math-solving strategies.
10. At the end of the session, collect all Recording sheets and Show Your Work sheets and compares them to the Answer sheets, to evaluate students' understanding of the unit/topic.

What if my students are getting stuck on one of the cards?

Occasionally, you may find that several students are stopped at a single card, preventing them from completing the full circuit of the activity.

In this case, ask that all students pause and go back to their seats.

Say: *"Several of you seem to be having difficulty with Card number 2 (or whichever card it may be).*

"Let's break out the problem."

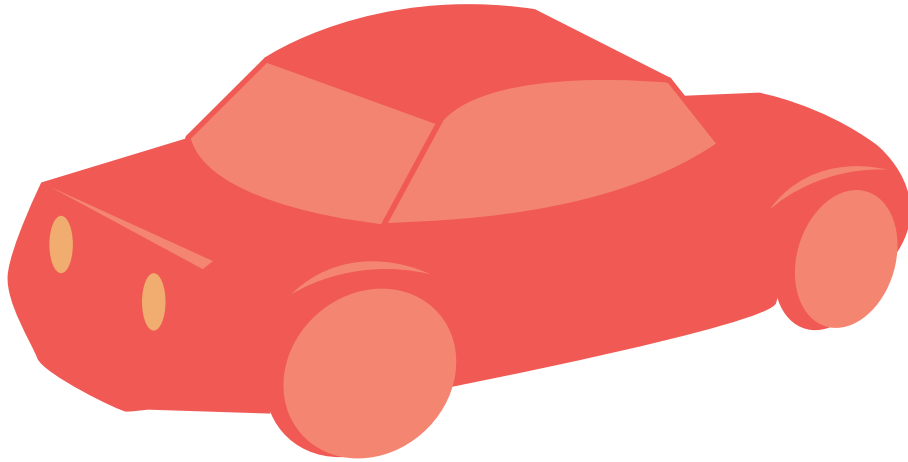
Write the problem on the board, step by step, asking students to participate in finding the answer.

If you find that many students are having difficulty with a particular card, you may want to see it as an opportunity to reteach all or part of that week's unit.

Jump Start Student Learning with Whole-Class Active Engagement

Modern educational research shows that the benefits of collaborative learning are numerous.

In addition to fostering collaborative learning, *Over There!* activity cards require that kids move about the classroom and actively locate the card containing the answer to a given question. In this way, students become more energized and engaged. When they do locate the answer card, their problem-solving efforts become validated. This makes learning math more rewarding and fun!

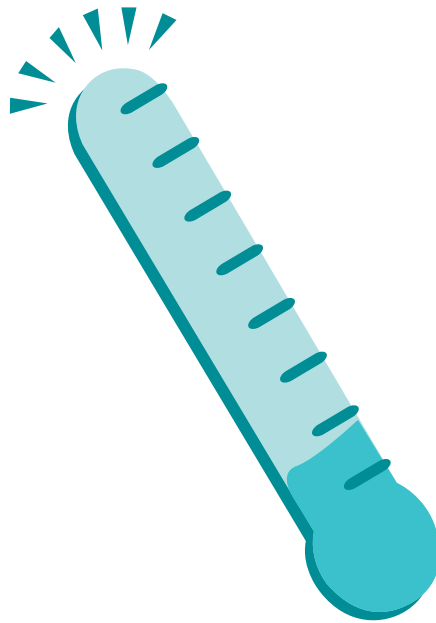


Stephanie's mom drove
300 miles in 5 hours.
What was her average speed?



225

Go around
the room
to find
the answer



The low temperature in Palmyra on Sunday was -15°F . On Monday, the low was 23°F . What is the difference between the two temperatures?



84

Go around
the room
to find
the answer



Find the sum of
 $-4a + 2$ and $7a - 3$.



170 ft



ALGEBRAIC EXPRESSIONS

1

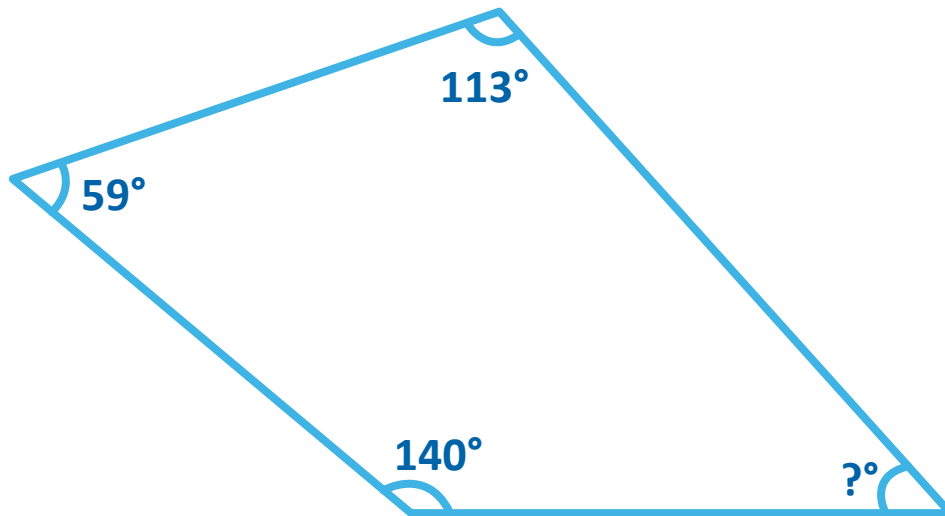


Max had \$46 to spend on school supplies.
After buying 10 pens, he had \$36.40 left.
How much did each pen cost?



\$33.60

Go around
the room
to find
the answer

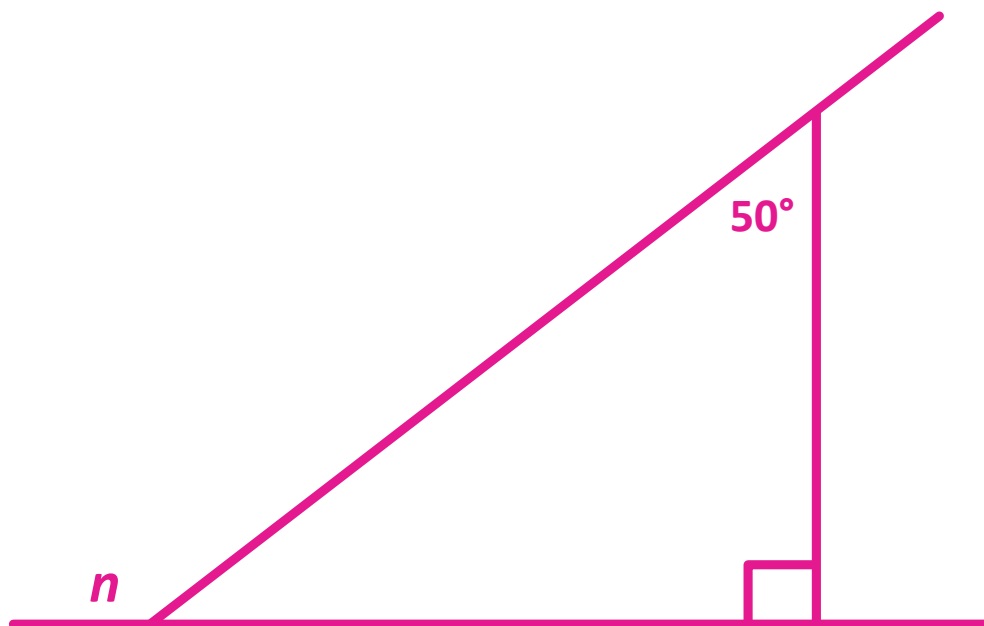


What is the measure of the missing angle of the quadrilateral?



1.9 cm

Go around
the room
to find
the answer

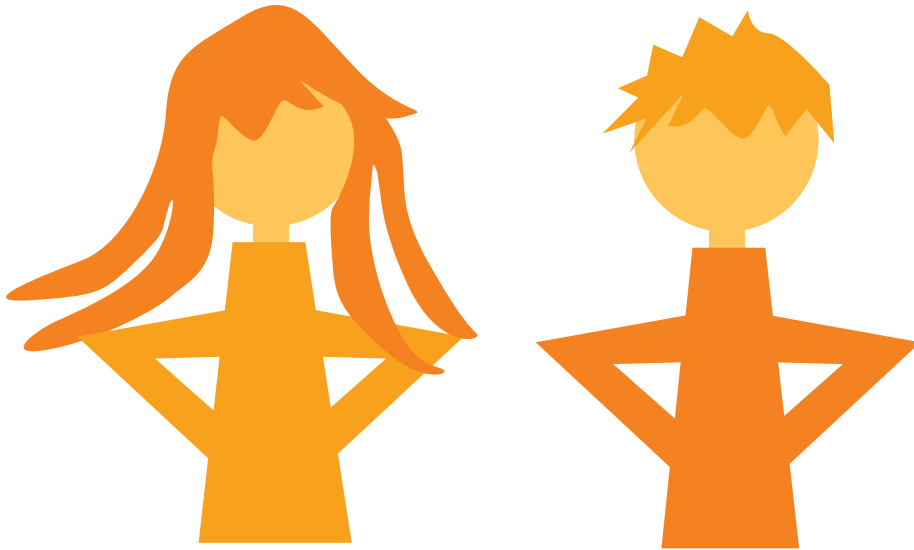


Write and solve an equation for the measure of n .



320 ft^3

Go around
the room
to find
the answer



There are 32 students in a class, 20 of whom are girls. If a student is randomly selected, what is the probability that it will be a boy?



0.5

Go around
the room
to find
the answer