

RIT

Reference Chart for MPG Mathematics



MAP tests produce scores that make it possible to monitor student growth from year to year along developmental curriculum scales or continua. The chart inside shows examples of the kinds of work students can do at various points along the MAP RIT scale, assuming they have been exposed to content. This type of information is helpful in supporting appropriate instruction.

Please note that each subject area has a unique alignment to the RIT scale. As a result, scores between subjects are not equivalent.

How to use the charts:

1. Find the column containing the student's score for a particular subject. For example, if the student's score in "Geometry" is 188, refer to the column labeled 181-190.
2. Read the column(s) from left to right to locate a sample test question for a given reporting area, such as "Geometry." A student's score suggests that, currently, he or she is likely to get about half of the questions of this difficulty correct.
3. Now look at the questions in the column(s) to the left, and higher on the page. The student is likely to get most of these correct, assuming he or she has been instructed in these skills and concepts.
4. The questions further down the page will probably require new learning on the student's part.

Please note:

Test items in this booklet are sample items, and many are not calibrated or field-tested. For purposes of this document, RIT scale alignment is an approximation.

Operations and Algebraic Thinking

Students can represent and solve problems involving addition, subtraction, multiplication, and division. They understand and can apply properties of operations, and understand the relationship between operations.

below 131



1 2 3 4 5

Look at the trucks.

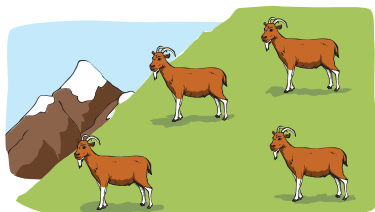
Two trucks and one more truck is how many trucks altogether?

131-140



Listen to the story problem:
There is 1 tree in the yard. 2 more get planted in the yard.
Move the trees to the yard to show how many there are altogether.

141-150



Listen to the story problem:

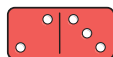
There are four goats on the hillside. Three goats leave the hillside.

Click on the goats to show how many are on the hillside now.

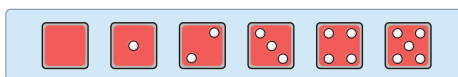
151-160



The domino shows one way to make 5.



Move dots to the empty domino to show a different way to make 5.



161-170



$$4 + \underline{\quad} = 6$$

1 2 3 4 5 6 7 8 9

You can use the buttons to help you find the answer to the problem.

Move the correct number to the blank line to make the sentence true.

171-180



_____ shells

30 35 43 48
78 112 121



Bella had 78 shells in her collection. She gave 43 shells away to her friends.

How many shells are left in Bella's collection?

You can move base ten blocks to help you solve the problem.

181-190



The Lions had 47 points at halftime.
At the end of the game they had 89.

How many points did the Lions score after halftime?

_____ points

1 2 3 4 5 6 7 8 9

above 191



$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

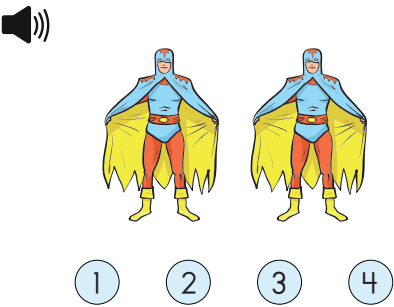
1 2 3 4 5 6 7 8 9

What is the answer?

Number and Operations

Students can understand place value, the counting sequence, and counting strategies. They can compose and decompose numbers into hundreds, tens, and ones. Students can use place value understanding to compare numbers, perform multi-digit arithmetic, and develop understanding of fractions.

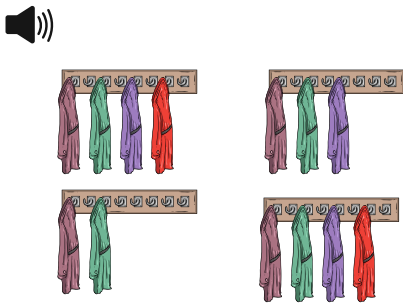
below 131



Look at the picture.

How many superheroes are there?

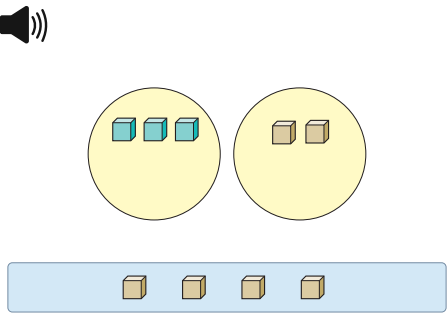
131-140



Look at the coat racks.

Click on the rack that has the fewest coats.

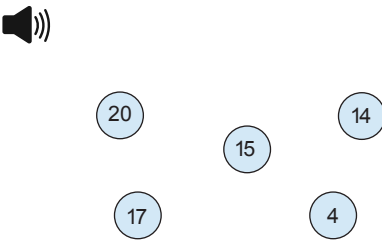
141-150



Look at the two groups.

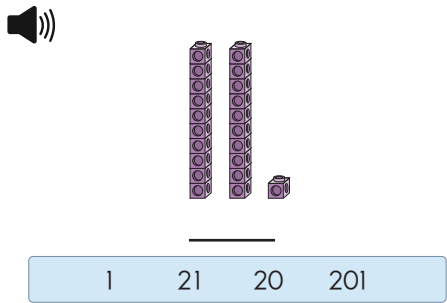
Move cubes to the circles to make the groups equal.

151-160



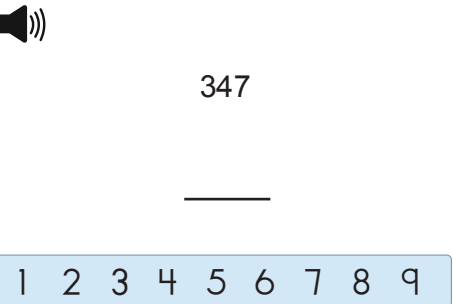
Click on the number that is 1 more than 13.

161-170



What number do the blocks show?

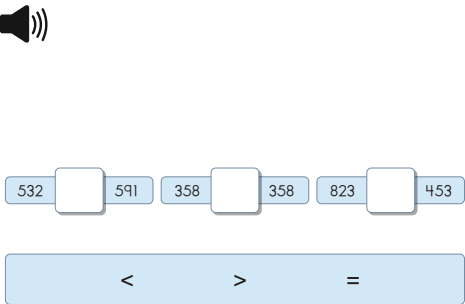
171-180



Look at the number.

What is 100 more than 347?

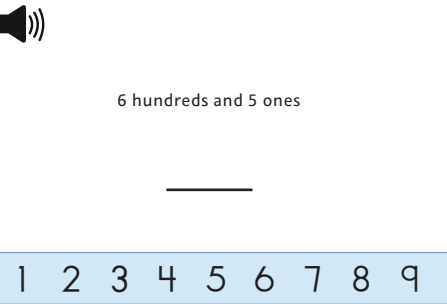
181-190



Look at the numbers.

Put the correct symbol in each of these problems to make them true.

above 191



Which number is described?

Measurement and Data

Students can solve problems involving measurement and estimation of lengths, time, liquid volumes, and masses of objects. They can use geometric measurement to understand area and perimeter. Students can organize, represent, and interpret data in various graphical representations.

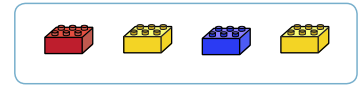
below 131



Look at the picture.

Click on the shortest student.

131-140



Look at the group of objects. The objects in this group belong together.



Click on the object that belongs with the group.

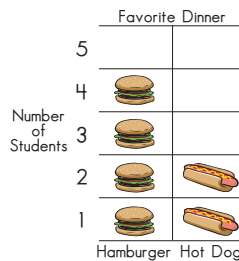
141-150



Look at the sticker chart.

Click on the name of the student with the most star stickers.

151-160



Look at the graph.

How many students chose hot dog as their favorite dinner?

1 2 3 4 5 6

161-170



_____ blocks

1 2 3 4 5 6 7 8 9

Look at the picture of the bus.

Measure the length of the bus using blocks. How many blocks long is the bus?

171-180

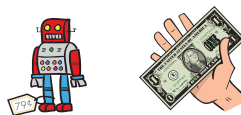


3:45 9:15 8:20 4:40

Look at the clock.

What time is shown on the clock?

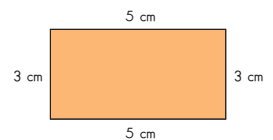
181-190



Listen to the story: Julia bought a robot toy for 79 cents. She paid for it with one dollar.

Show the change that Julia should receive. Take as many coins as you need from each stack.

above 191



10 11 12 13 14
15 16 17 18 19 20

What is the perimeter of the rectangle?

Geometry

Students can reason with shapes and their attributes. They can identify and describe shapes having specified attributes. Students can partition shapes into equal shares to gain an understanding of fractional parts of a whole.

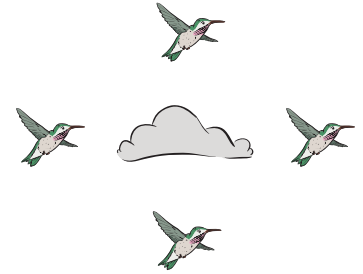
below 131



Look at the shapes.

Which shape has only 3 sides?

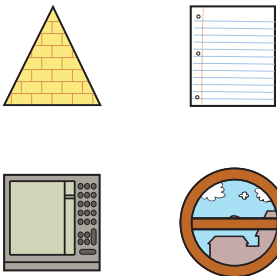
131-140



Look at the picture.

Which bird is over the cloud?

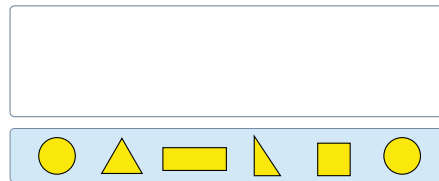
141-150



Look at the pictures.

Which is shaped like a circle?

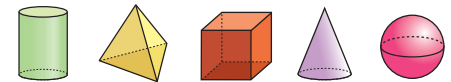
151-160



Look at the shapes.

Move ALL the shapes with four corners to the mat.

161-170



Look at the shapes.

Click on the pyramid.

171-180



Look at the shapes.

Click on ALL of the shapes that are divided into equal shares.

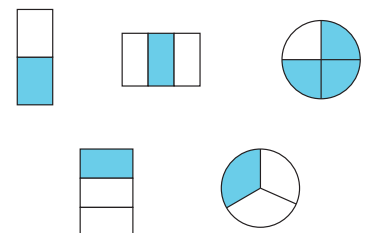
181-190



Look at the shapes.

Click on the shapes that have six faces.

above 191



Look at the shapes.

Click on ALL of the shapes with one-third shaded.