

Major Learning Targets for This Grade

Meaning of Multiplication and Division

Students will understand multiplication and division, as well as strategies for multiplication and division within 100.

"I can build a model and draw a picture to solve problems involving multiplication and division."

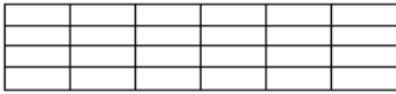
"I can use the properties of multiplication and the relationship between multiplication and division."

"I can multiply and divide within 100 fluently using many strategies."

Example Task:

There are 24 desks in the classroom. If the teacher puts 6 desks in each row, how many rows are there?
The task can be solved by:

Drawing an array model



Drawing a picture of equal groups



Reasoning mentally, verbally, or in writing

"I know 6 and 6 are 12. 12 and 12 are 24. Therefore, there are 4 groups of 6 desks that give a total of 24 desks in the classroom."

Developing Understanding of Fractions

Students will understand fractions as numbers, especially unit fractions.

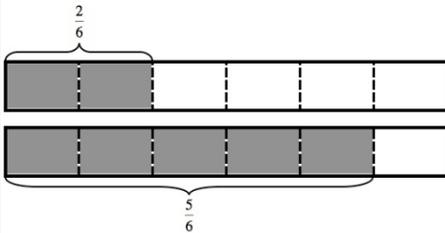
"I can partition (divide) shapes into two, three, four, six, and eight equal parts; name and use unit fractions to build more fractions."

"I can explain equivalence of fractions and compare fractions by reasoning about their size."

"I can draw, name, and see equivalent (same size) fractions named differently on a number line model."

Example Task:

Compare the following fractions $\frac{2}{6}$ ○ $\frac{5}{6}$. Use pictures, words, and the symbols $>$, $=$, $<$ to illustrate and explain your answer.



Possible Student Work:

"The denominator for both fractions is the same, which tells us that each fraction refers to the same size piece (sixths). If we have only 2 of those pieces, we have fewer pieces than if we have 5 of those pieces. The picture illustrates this comparison because the shaded area representing $\frac{2}{6}$ is less than the shaded area representing $\frac{5}{6}$. So $\frac{2}{6} < \frac{5}{6}$."

Area and Perimeter

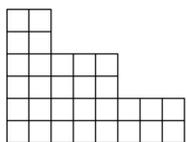
Students will understand the concepts of rectangular area and relate area to multiplication and addition.

"I can measure an area by counting unit squares."

"I can find the area of a rectangle by multiplying the side lengths."

"I can find the total area of a polygon by splitting it into smaller rectangles and then adding the area of all the smaller rectangles."

Example Task:



There are many ways to find the area of this figure.

1. Try to find as many ways as you can to split this figure into exactly 3 smaller rectangles. Be sure that none of the smaller rectangles overlap and the 3 smaller rectangles cover the entire figure.
2. For every example you found, write an expression that represents the area as the sum of the 3 rectangles. Find the total area of this figure.

Expected Behaviors in Math Class

Students will...

- Consider available tools to help them solve problems and deepen understanding (including hands-on tools and technology).
- Look for patterns and connections.
- Explain their thinking and their process for solving a problem.
- Make predictions and estimations.
- Decide if an answer is reasonable.
- Justify conclusions.
- Communicate ideas clearly verbally and in writing, using math vocabulary when appropriate.
- Apply mathematics to solve problems in everyday life.

How Can I Support My Student in This Course?



Access Google Classroom Regularly (if Applicable)

- ⇒ Look at the Stream for daily announcements and a weekly schedule.
- ⇒ View the Classwork for assignment information and support.



Encourage Multiple Strategies and Representations of the Problem

- ⇒ Ask your student to solve the problem in different ways.
- ⇒ Encourage the use of different representations (e.g., symbols, words, or pictures/visuals), and have them make connections between representations.



Ask Questions & Encourage Your Student to Ask Questions

- ⇒ When your student is stuck, don't simply tell them the correct answer. Ask questions like:
 - "What is the question in the problem/task?"
 - "What do you understand/know from the task?"
 - "How do you know?" Listen while your student explains their mathematical reasoning and ask, "Does your answer make sense?" based on the context of the problem or task.
- ⇒ Encourage your student to write down questions to bring to their teacher or peer the next day.



Value Mistakes

- ⇒ Students are learning when they are making mistakes; create an environment where your student feels comfortable making a mistake and learning from it.



Acknowledge Effort over Answers and Speed

- ⇒ Celebrate how hard your student is working, whether their answer is correct or not.
- ⇒ When your student is stuck, remind them that learning can be challenging, and if they continue to practice and work hard, they will improve.