



Math Summer Assignment for
Math 6
Wall Township Math Department
Optional Summer Assignment



★ This summer assignment is intended to prepare you for the math course above. ★

Welcome to 6th Grade Math!

To help you get ready for a successful start, we have created this optional summer assignment.

At Wall Intermediate School, we use **Amplify Desmos Math**, a program that encourages students to think deeply about mathematics, explain their reasoning, and solve problems in multiple ways. As you complete this summer work, focus not only on finding the correct answers but also on understanding the mathematical ideas behind them.

A strong foundation in fractions is essential to many of the topics we will explore in 6th grade, including ratios, percentages, decimals, and algebraic thinking. This assignment will allow you to review and strengthen your fraction skills so you can begin the school year with confidence.

The first section of this assignment focuses on fractions. The second section introduces you to the way questions will be asked in the Amplify Desmos Math program.

Take your time, show your work, and do your best. We look forward to seeing you in September and building on these skills together.

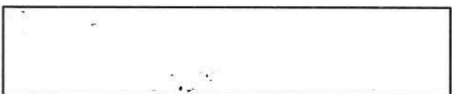
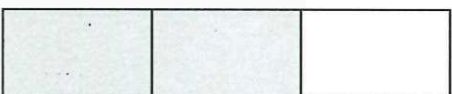
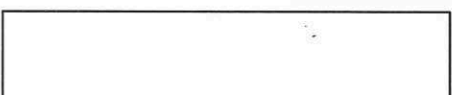
Have a great summer, and happy problem-solving!

The 6th Grade Math Team

Section 1: Fractions

Skill 1: Fraction - Decimal

Complete the Chart. The first is done for you as an example.

Fraction (in reduced form)	Picture	Decimal
$\frac{1}{2}$		0.5
		0.75
$\frac{1}{4}$		
$\frac{1}{10}$		
		0.2
		
$\frac{3}{5}$		

Skill 2: Operations with Fractions



Helpful Video Link:

→ [Fraction Review | How to Add, Subtract, Multiply, and Divide Fractions](#)

Show work to perform the given operation. Simplify all answers.

$$\frac{3}{8} + \frac{1}{8}$$

$$\frac{3}{8} - \frac{1}{8}$$

$$\frac{3}{8} \times \frac{1}{8}$$

$$\frac{3}{8} \div \frac{1}{8}$$

$$\frac{5}{6} + \frac{3}{4}$$

$$\frac{5}{6} - \frac{3}{4}$$

$$\frac{5}{6} \times \frac{3}{4}$$

$$\frac{5}{6} \div \frac{3}{4}$$

Section 2: Show work and provide explanations as you complete the practice problems. These problems are similar to how the Amplify Desmos Math program presents questions.

In 6th grade, we will use Amplify Desmos Math, a program designed to help students develop a deep understanding of mathematics through exploration, discussion, and problem-solving. Students will be expected to actively participate in lessons, share their thinking, ask questions, and learn from the ideas of their classmates.

Mathematics is about more than finding the correct answer. Students will be encouraged to explain their reasoning, make connections between concepts, use multiple strategies to solve problems, and persevere when faced with challenging tasks. Productive struggle is an important part of learning, and mistakes are viewed as opportunities for growth.

Throughout the year, students will engage in meaningful mathematical discussions, collaborate with peers, and use technology to investigate patterns, test ideas, and strengthen their understanding. By coming to class prepared to think, participate, and take risks, students will build the confidence and skills needed to become successful mathematicians.

As you work through the next problems, make sure you explain your thinking.

2

What is the value of the 6 in the number below?

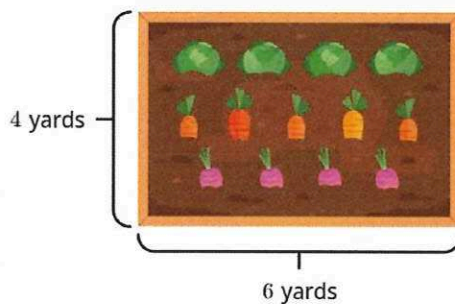
2,136,428



3

This diagram shows the measurements of a garden.

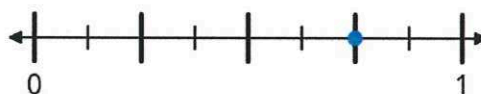
Determine the area of the garden.



4

The point on the number line represents the fraction $\frac{6}{8}$.

What is another equivalent fraction that could be placed at that point?



5

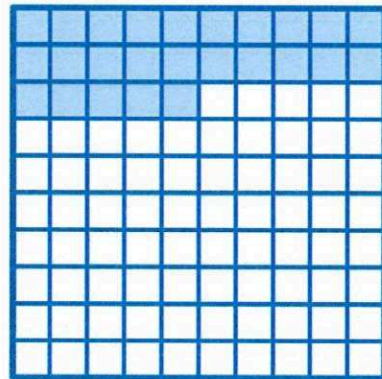
The whole grade is going on a field trip to an aquarium. There are 86 students, and tickets cost 12 dollars per student.

How much will it cost to buy aquarium tickets for all the students?



6

Write a decimal or fraction to represent the shaded part of this hundreds grid.



Evaluate the expression.

$$5 \times (8 - 6)$$

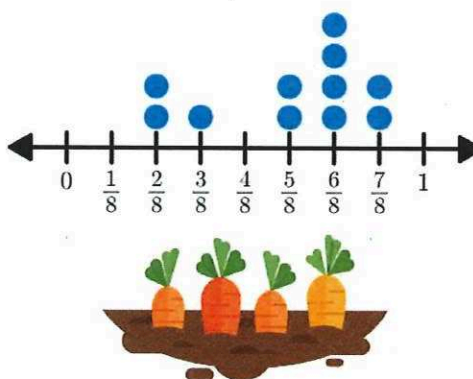


The line plot represents the lengths, in feet, of the carrots students pulled from the school garden.

What is the difference between the shortest and longest carrot?



Carrot Lengths (feet)



The length of the surfboard is 5 feet.

How long is the surfboard in inches?

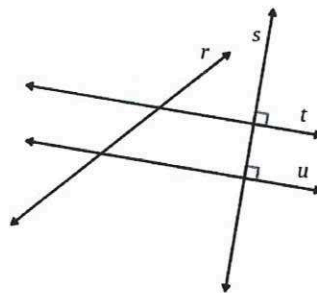


Which line in the drawing is perpendicular to Line u ?

Line t

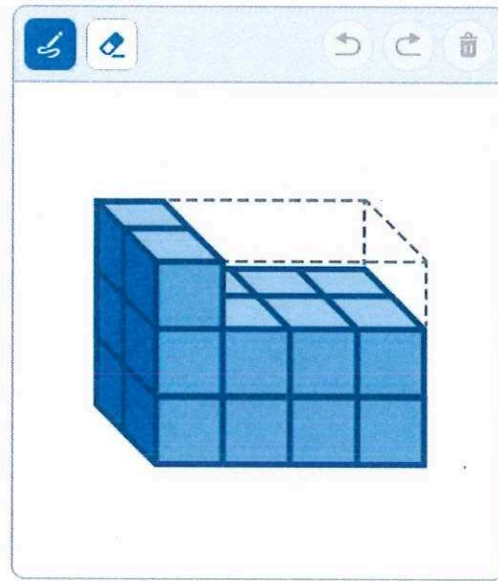
Line r

Line s



11

The rectangular prism will be filled completely. How many cubes will it hold?



12

A class is on a field trip at the Science Museum. All 65 students get in line for the spaceship ride. The ride holds 7 people in each spaceship.

How many spaceships will they need to hold all 65 students?



On Saturday, Linda ran $\frac{3}{10}$ of a mile. On Sunday, she ran $\frac{60}{100}$ of a mile.

Write the total distance Linda ran on Saturday and Sunday.



Write an expression to represent 5 times the sum of 11 and 8.



Noah spent \$36.36 on a jacket,
\$42.99 on a pair of shoes, and
\$10.25 on a pack of socks.

Which is the closest estimate for the
total amount of money Noah spent?

\$90

\$70

\$80

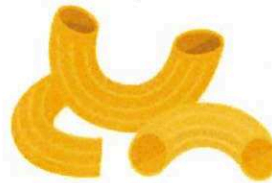
\$100



5 friends are having a pasta night.

The normal serving is $\frac{3}{4}$ of a cup of
macaroni per person.

How many cups of macaroni do they
need altogether?



Enter the product.



A digital workspace with a light blue header bar containing icons for a pencil, eraser, undo, redo, and delete. The main area is white and contains a multiplication problem:

$$\begin{array}{r} 1,432 \\ \times \quad 3 \\ \hline \end{array}$$