

# Summer Math Activities for Students Entering Grade 5

**Dear Student / Parent / Guardian:**

The following websites are designed to allow you to practice your math skills throughout the summer in a fun way! The first part of your assignment is to select 10 of the websites to practice your math for at least 10 minutes once a week. Of course, you can practice more than this, it's just a suggestion. The second part of your summer assignment is to complete the Grade 4-5 Study Island Summer Assignment. Finally, to promote a STEAM connection, there are three Problem Solving Reading Mat activities that your child is encouraged to complete.

Your teacher will collect your Website Log, the Problem Solving Reading Mat activity sheets, and the print out of the Individual Summary Report when you come back to school in September. *If you are new to Clifton School District, you will not be able to complete the Study Island Summer Assignment.*

Students who do not have computer access can go to the Clifton Public Library and request a Library Card that will grant them internet access.

## Enjoy your Summer Vacation!!!

## Math Practice Sites

**The following websites are designed to allow you to practice your math skills throughout the summer in a fun way!**

<https://www.pearsonrealize.com> Sign into your account, click on the Classes tab, Click on the Game Center on the right side.

<https://www.prodigygame.com/> Sign up for a **free** account. Role playing math game for grades 1-8

<https://www.funbrain.com/math-zone> Games are listed by grade level

<http://www.AAAMath.com> Interactive Math Activities

<http://www.missmaggie.org> “Around the World in 80 Seconds”

[http:// Brainpop.com/](http://Brainpop.com/) Try a quiz and extra practice

<http://www.arcademics.com> Lots of great interactive math games

<http://www.aplusmath.com> Games and Flashcards

<http://www.brainormous.com/> Problem solving and math games

<http://www.allmath.com/flashcards.php> Flash cards for all basic operations

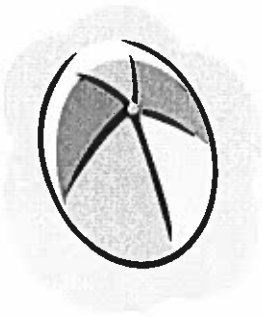
<http://www.mathplayground.com/index.html> More math games

<http://www.mathplayground.com/games.html> Games for grades 1-6.

<http://www.ericmilou.com> Browse the Grade K-3 or 4-8 Math Links

<http://www.rsinnovative.com/rulergame/> Start off with 1 inch

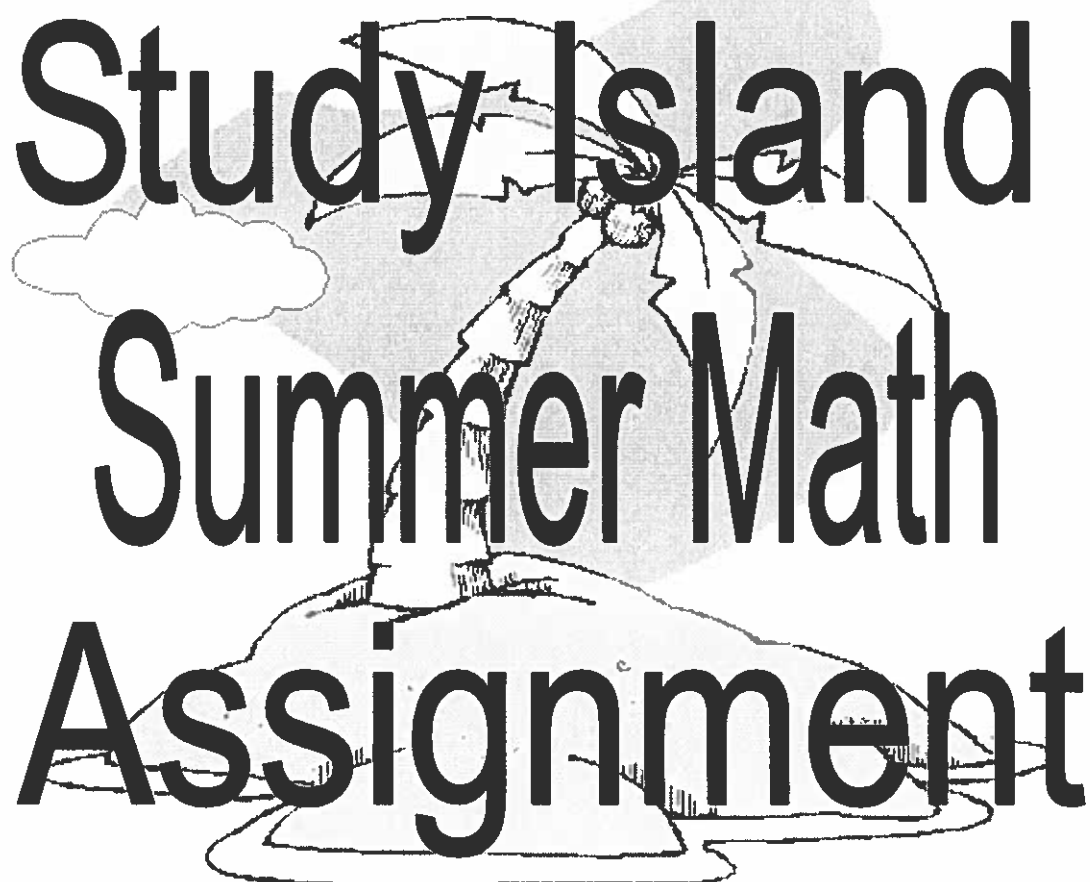
**You can always choose a different online math game; just make sure it's a FREE game!**



**Summer Math Web Activities Log**

Date	Website Name/Activity	Time	Explain What You Did

**Please use the WEBSITE LOG to document what sites you've visited and how long you've spent practicing your math skills and concepts. Remember, you need to log AT LEAST 10 minutes once a week on at least 10 of the sites listed.**



# Study Island Summer Math Assignment

PLEASE NOTE: If you are a new student to the district, you WILL NOT be able to complete this part of the Math Summer Packet because you have not been enrolled in Study Island.

Student Name \_\_\_\_\_

Parent Signature \_\_\_\_\_

(I am aware that this assignment is due the first day of school in September to my child's teacher.)

\*If packet is lost, please log onto [www.clifton.k12.nj.us](http://www.clifton.k12.nj.us) for an additional copy.

A portion of your summer Math packet is going to consist of Study Island assignment. Your teacher has posted an assignment on your Study Island account for you to complete. In order to complete the assignment, you must do the following:

- Ⓒ Log into [www.studyisland.com](http://www.studyisland.com)
- Ⓒ Click on "Log in" → Enter *user name* and *password*  
(User name is your ID#@cps and password is clifton)
- Ⓒ Click on "Summer Math Assignment" to view the list of assignments to complete

To receive full credit for this assignment, you must complete **3** out of the **6** topics listed. **ONE of the 3 topics MUST BE from NUMBERS AND OPERATIONS: FRACTIONS.**

Follow these steps to complete each assignment:

- Ⓒ Click on the assignments you choose to complete
- Ⓒ You can choose "Game Mode" or "Practice Mode". This choice is highlighted in green.
- Ⓒ Click "Next" to begin assignment
- Ⓒ Click on "End Session" when you are notified that all 10 questions have been completed.
- Ⓒ **Parents Please Note:** In order to receive a blue ribbon, students must achieve a score of 70% for each topic. This is not required for completion of the assignment, however, students should score at least 60% for each set of 10 questions. If you choose to do over the number of questions assigned, please do not attempt to have students complete more than 30 questions in a single topic assigned for the summer.
- Ⓒ WHEN YOU'RE DONE WITH YOUR ENTIRE SUMMER ASSIGNMENT, PLEASE PRINT YOUR INDIVIDUAL STUDENT REPORT AND BRING IT TO YOUR TEACHER.
  - CLICK ON MY REPORTS
  - CLICK ON INDIVIDUAL STUDENT REPORT

- SELECT YOUR PROGRAM: 4TH GRADE NJ STANDARDS MASTERY
- SELECT YOUR SUBJECT: MATH (STUDENT LEARNING STANDARDS)
- CLICK ON **VIEW REPORT**--RIGHT CLICK ON THE SCREEN AND SELECT **PRINT**. THIS WILL PRINT YOUR **INDIVIDUAL STUDENT REPORT**.

If needed, there is a red HELP tab on the top right to help navigate through any issues you may come across.

*Make sure to try your personal best when completing each assignment. You have access to the scratch pad, highlighters, calculator, and timers if you choose to use them. Take your time and have fun!*

# The variety of life

There is more variety of wildlife in the world's tropical rain forests than anywhere else on Earth. There is so much, in fact, that scientists believe there is still a lot to find.

## Rainbow birds

Birds of every color flash among the trees. This toucan uses its fantastic beak to crack open the many forest fruits, attract toucan friends, and scare away enemies.

## Diet descriptions

- Carnivore** A meat eater. Poison dart frogs eat insects, so they are carnivores.
- Herbivore** A plant eater. Leaf-munching iguanas and nectar-drinking butterflies are herbivores.
- Omnivore** A meat and plant eater. Toucans and tamarins, for example, eat a mixture of fruit and insects.

## Amphibians

Brightly colored frogs, like this poison dart frog, are common in jungle trees. Frogs and toads are amphibians, which means they can live in and out of water.



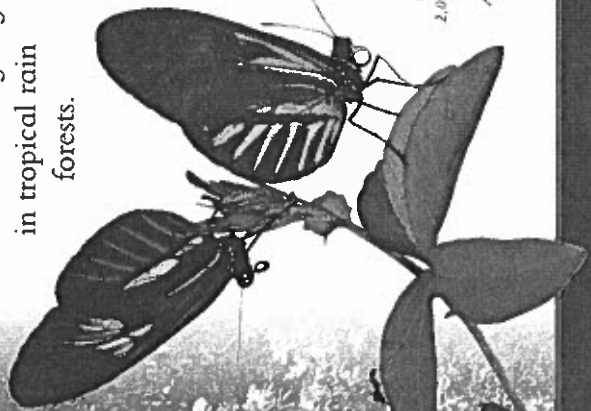
*Reptiles are close relatives of the dinosaurs—that's why some of them look so fierce!*

## Bug central

There are far more creepy crawlies than anything else in the animal kingdom, and nowhere is that more obvious than in the rain forests. On just one jungle tree, scientists found 200 different types of ants—that's more than in many countries.

*The postcard butterfly is one of 2,000 species of butterfly found in the Amazon rain forest.*

New types of insects are found every day in tropical rain forests.



Name \_\_\_\_\_

## Animal Algorithms

Did you know that about  $\frac{4}{5}$  of all insects live in tropical rain forests? Scientists are continually doing research to find new information about the organisms that inhabit rain forests.

Complete each comparison sentence. Find the value of the variable that makes each sentence true.

1. There are 5 times as many frogs as butterflies in one section of a rain forest. There are 37 butterflies. How many frogs,  $f$ , are there?

$f$  is 5 \_\_\_\_\_ 37.

$f =$  \_\_\_\_\_

2. Kierra counted 275 beetles. Malcolm counted 59 more beetles than Kierra. How many beetles,  $b$ , has Malcolm counted?

$b$  is 59 \_\_\_\_\_ 275.

$b =$  \_\_\_\_\_

3. Anthony took 83 pictures of frogs in a rain forest. Tasha took 127 more pictures of frogs than Anthony. How many pictures,  $p$ , did Tasha take?

$p$  is 83 \_\_\_\_\_ 127.

$p =$  \_\_\_\_\_

4. There are 4 times as many toads as frogs in the pond. There are 54 frogs. How many toads,  $t$ , are there?

$t$  is 4 \_\_\_\_\_ 54.

$t =$  \_\_\_\_\_



Name \_\_\_\_\_

# Inventory

Animal shelters take in animals that have been abandoned or injured. In order to house, feed, and take care of the animals, a shelter needs a lot of items.

An animal shelter has 6 boxes of paper towels in inventory. A truck delivers 3 times as many boxes of paper towels. Each box contains 28 rolls of paper towels. How many rolls of paper towels does the shelter have?

1. Write and solve the hidden question(s) you need to answer before you answer the original question.

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2. Use your answer(s) to the hidden question(s) and an equation to determine how many rolls of paper towels there are.

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A shelter uses 15 cans of cat food and 24 cans of dog food a day. How many cans does the shelter use in 7 days?

3. What hidden question(s) do you have to answer first?

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Use the answer(s) to the hidden question(s) to answer the original question.

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# Tactics

**PART OF SOCCER'S APPEAL** is its tactical element. Coaches and managers try to outwit the opposition by keeping their tactics secret until the game. Since soccer first began, teams have lined up in different formations, trying to play in a way that will take the other team by surprise and result in a goal. Early players had the physical attributes and skills needed for a particular position on the field. Today, the pace of the game demands that players be prepared to play in almost any position, in the manner of the Dutch "total soccer" teams of the 1970s.



The defenders are physically blocking the attacker.

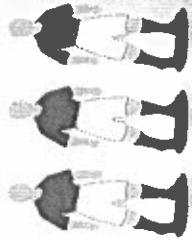
**Packed defense**  
Denial of space to the opposition forwards is vital and certain players may be singled out for man-to-man marking. It is often said that the best teams are built from the back, with a strong defense providing a springboard for attack. Here, defenders are surrounding a striker

The attacker is tripped.



## Be prepared

Lots of goals are scored from set-pieces—movements that a team practices before a game. Coaches spend a great deal of time going through these with the team in practice.



## No substitute

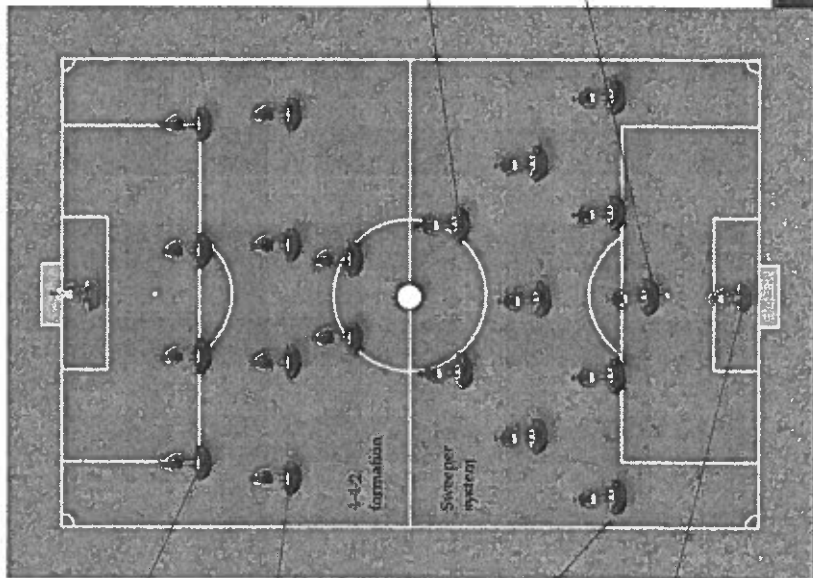
Substitutions were first allowed by FIFA in 1958, but only if a player was injured. Injuries were faked so often to let coaches make tactical changes that it was gradually accepted that one player could be freely replaced. Now the number of substitutes allowed per team has increased to five for some games.

During the game one forward often plays "in the hole" behind the other.

Sweeper must be creative and pass accurately.

## Clean sweep

Modern formations are varied, but the 4-4-2 is one of the most popular. The four defenders are not expected to push forward and the four midfielders sometimes switch to a diamond shape. The sweeper system, perfected by the Italians in the 1960s, frees one player from marking duties to act as cover.



Germany won the 2014 World Cup with a back four.

Midfielders need to be able to play offense and defense.

Wing-backs are responsible for spreading the field and attacking the goal.

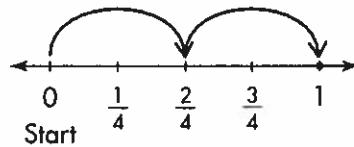
The goalkeeper is the only player on the field allowed to use his hands.

Name \_\_\_\_\_

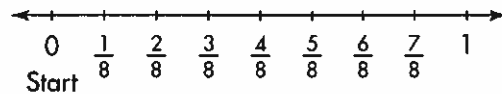
# Hurdling Down the Number Line

It is Olympic Day at school! Students are running, jumping hurdles, throwing shot-put, and participating in other contests. Use number lines to show the students' progress.

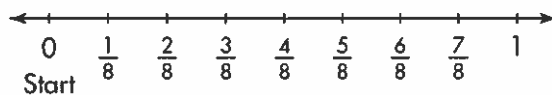
1. The number line shows how Kerry and Kevin ran in a 1-mile relay race. Write the equation shown on the number line.



2. Jimmy starts the relay race and runs  $\frac{3}{8}$  mile of the course before passing the baton to Carol. Carol runs  $\frac{4}{8}$  mile more of the course before stopping. What distance did Jimmy and Carol complete in all? Use the number line to solve.



3. The baton is handed to Shauna, and she runs from the  $\frac{2}{8}$ -mile marker to the  $\frac{5}{8}$ -mile marker. She hands the baton to Eric. Eric runs to the finish line. What distance did Shauna and Eric run in all? Use the number line to solve.

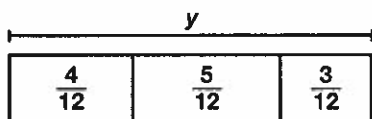


Name \_\_\_\_\_

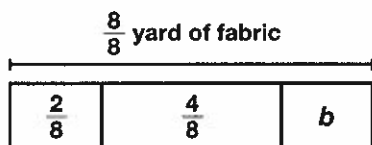
## Making Uniforms

The sports teams at Mount Eagle Elementary hired a seamstress to make uniforms for their players. The coaches visit the fabric store to purchase material. Help the employees at the store determine the right amount of fabric to cut for each coach.

1. The softball coach asks for  $\frac{4}{12}$  yard of green fabric,  $\frac{5}{12}$  yard of pink fabric, and  $\frac{3}{12}$  yard of blue fabric. How many yards of fabric does the softball coach get? Use the bar diagram to write an equation to solve.



2. The soccer coach asks for  $\frac{8}{8}$  yard of fabric.  $\frac{2}{8}$  yard is gold fabric,  $\frac{4}{8}$  yard is silver fabric, and the rest is black. How many yards of fabric are black? Use the bar diagram to write an equation to solve.



3. The track coach already bought  $\frac{4}{6}$  yard of green fabric. He wants to return it and buy  $\frac{2}{6}$  yard of yellow fabric instead. How many fewer yards of fabric will he have now? Draw a bar diagram and write an equation to solve.

# Problem-Solving Reading Mat

USE WITH TOPIC **12**

PEARSON



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# WINNER takes all!

Congratulations! You've won a competition and you can choose the first prize of \$100,000 now or \$10,000 a year for life. So, which do you choose?

\$10,000  
A YEAR  
FOR LIFE

\$100,000  
NOW

<p><b>1</b></p> <p>...but I'm (hopefully) going to live for more than 10 years, so in total I'd get more than \$100,000—maybe even two or three times as much.</p>	<p>Wow! Just think of all the things I could buy with such a huge amount of money. That would make me so happy...</p>	<p>20 years</p> <p><b>X</b></p> <p><b>=</b></p>	<p><b>1</b></p>
<p><b>2</b></p> <p>...although I could use the \$10,000 each year to take out a mortgage to buy a house. I could also use some of the money to buy things like a better car or vacation.</p>	<p>With my lump sum, I could buy property or pay off debts so I don't have to worry about those things in the future...</p>	<p><b>2</b></p> <p><b>=</b></p>	<p><b>2</b></p>
<p><b>3</b></p> <p>...or I can use the annual payments to help pay my bills from now on.</p>	<p>I can invest all \$100,000 for the future and hope it will grow...</p>	<p>One day, every year, for the rest of my life...</p> <p>2014</p> <p>rent ✓ bills ✓ vacation ✓ treats ✓</p>	<p><b>3</b></p>
<p><b>4</b></p> <p>...or I can save some money each year, although the \$10,000 payments will stop when I die and my children will only inherit what I've saved.</p>	<p>I can put it in a bank account and get \$1,000 a year interest for the rest of my life and still be able to leave the whole lump sum to my children...</p>	<p>So what's the answer? Essentially, it's a question of how long you think you're going to live, what you think is going to happen to interest rates, and whether there is anything big, such as a house, that you would need to buy right away.</p>	<p><b>4</b></p>



Name \_\_\_\_\_

# Good Investments

There are benefits to investing money or putting money into a savings or checking account at a bank. Investments and bank accounts can earn interest, with more interest usually being paid to accounts that have more money.

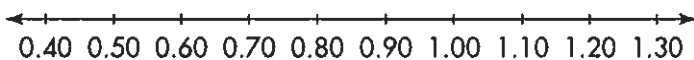
- Mr. and Ms. Smith win a competition and take \$100,000 as their prize. They pay some bills and invest the remaining money in four different accounts that each earn interest. Plot the fraction of each dollar they earn as interest on the number line.

Account A  $\frac{6}{100}$     Account B  $\frac{10}{100}$     Account C  $\frac{14}{100}$     Account D  $\frac{8}{100}$



- The table shows the amount of interest each account has earned this month. Complete the table. Then plot a point on the number line for each interest amount as a decimal.

Account	Interest Earned	Interest Earned Written as a Decimal
Account A	40 cents	
Account B	1 dollar and 10 cents	
Account C	1 dollar and 30 cents	
Account D	80 cents	



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Name \_\_\_\_\_

## At the Bank

People go to banks for various reasons. They might open or close an account, request or make a payment on a loan, pay a bill, cash a check, or ask a question about an account. Help the banker answer each customer's question.

1. One customer takes her \$100 paycheck to the bank. She deposits  $\frac{65}{100}$  of her paycheck in her checking account and  $\frac{3}{10}$  of her paycheck in her savings account. The rest of her paycheck she takes as cash and puts it in her wallet. What fraction of her paycheck does she put in her wallet? Show your work.

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2. Another customer's statement says he earned  $\frac{4}{10}$  of a dollar in interest on Account A,  $\frac{28}{100}$  of a dollar in interest on Account B, and  $\frac{84}{100}$  of a dollar in interest on Account C. How much did this customer earn in interest? Write the amount as a fraction. Show your work.

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3. A third customer says she wants to deposit 12 and  $\frac{4}{10}$  dollars between her two accounts. Show 2 possible ways this customer can deposit 12 and  $\frac{4}{10}$  dollars between two accounts.

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 12\frac{4}{10} \quad \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 12\frac{4}{10}$$