



Welcome to our class

Fourth Grade Math

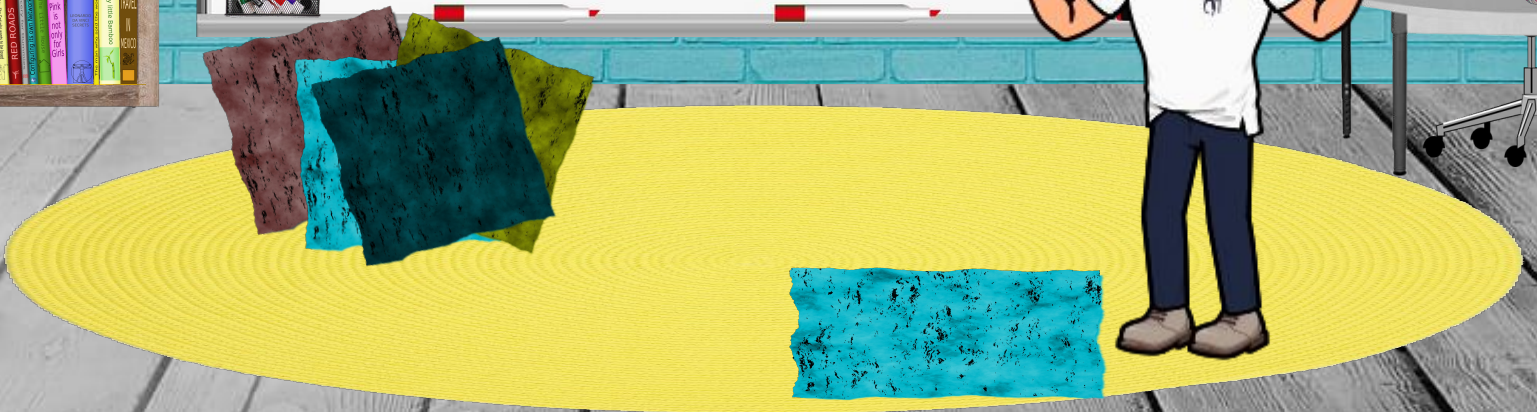
Resource Room



WHEN YOU ENTER THIS CLASSROOM

YOU ARE KIND	YOU ARE IMPORTANT
YOU ARE RESPECTED	YOU ARE WONDERFUL
YOU ARE SMART	YOU ARE BRAVE
YOU ARE CAREFUL	YOU ARE SPECIAL
YOU ARE HELPFUL	YOU ARE UNDERSTOOD
YOU ARE HONEST	YOU ARE SUPER
YOU ARE A PART OF MY HEART	

My Students



Virtual Math Manipulatives



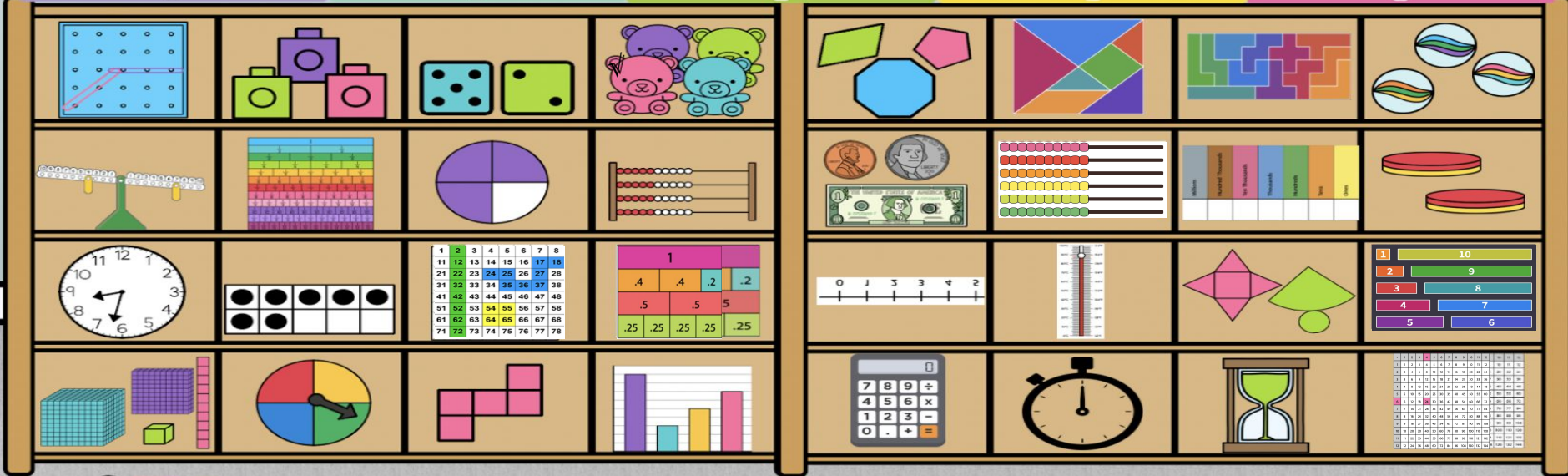
TOY THEATER

MATH LEARNING CENTER

MATHIGON'S POLYPAD

MATH PLAYGROUND

DIDAX



CLIPART: BLUNNY, Pink Owl, Alison Fors

Welcome to our class

HOME
Sweet
CLASSROOM



Search by Topic:

Multiplication Facts

Patterns

Place Value - Whole Numbers

Place Value - Decimals

Rounding

Equality

Compare and Order

Add and Subtract Whole Numbers

Add and Subtract Decimals

Estimation with Rounding

2x1 & 2x2 Multiplication

Long Division



Welcome to our class

HOME
Sweet
CLASSROOM



Search by Topic:

LCM and GCF

Fractions

Add and Subtract Fractions

Compare and Order Fractions

Probability

Plane and Solid Figures (2D & 3D)

Lines, Rays, and Angles

Perimeter and Area

Measurement

Telling Time

Elapsed Time

Analyzing Data/Graphs

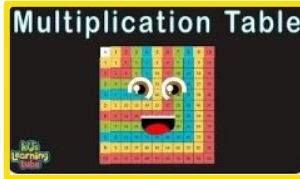
Word Problems



x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

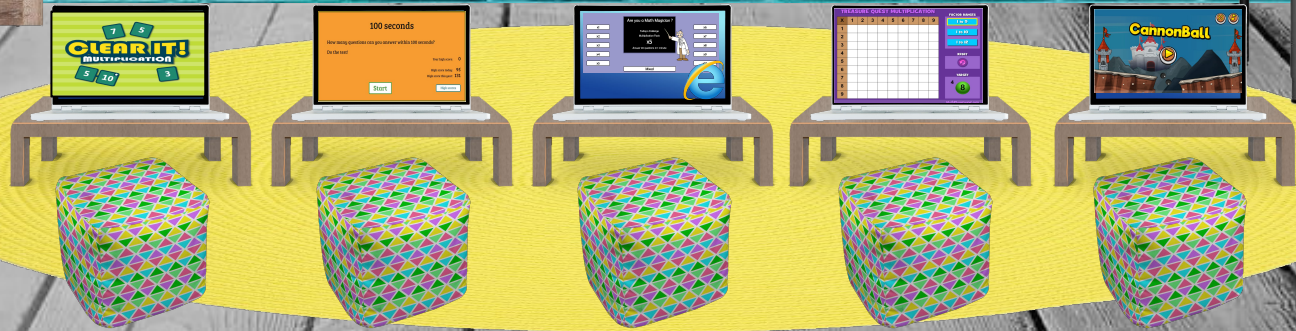
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Multiplication Facts



Multiplication

1x	2x	3x	4x
5x	6x	7x	8x
9x	10x	11x	12x





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Patterns

5, 4, 3, 2, 1

Number Sequencing

1, 2, 3, 4, 5

Patterns and Equations
Finding the Rules for Patterns

1	2	5	6	8
3	6	15	18	24

Finding patterns in numbers

Khan Academy

Maria went to the park each day for four days. The table shows the number of rabbits she saw each day.

Day	Equation	Number of Rabbits
1	1×2	2
2	2×2	4
3	3×2	6
4	4×2	8
10	10×2	20

If this pattern continues, how many rabbits will Maria see on the 10th day?

Patterns

Increasing Repeating Pattern

- Addition
- Multiplication

3, 6, 9, 12
2, 4, 8, 16

Function Machine

Determine the rule by finding the difference of the two numbers

12	18	24
Input	Output	Output
17	18	19

Increasing Growing Pattern

- Addition
- Multiplication

2, 4, 7, 11, 16
1, 2, 6, 24

Decreasing Repeating Pattern

- Subtracting
- Division

50, 43, 36, 29
96, 48, 24, 12

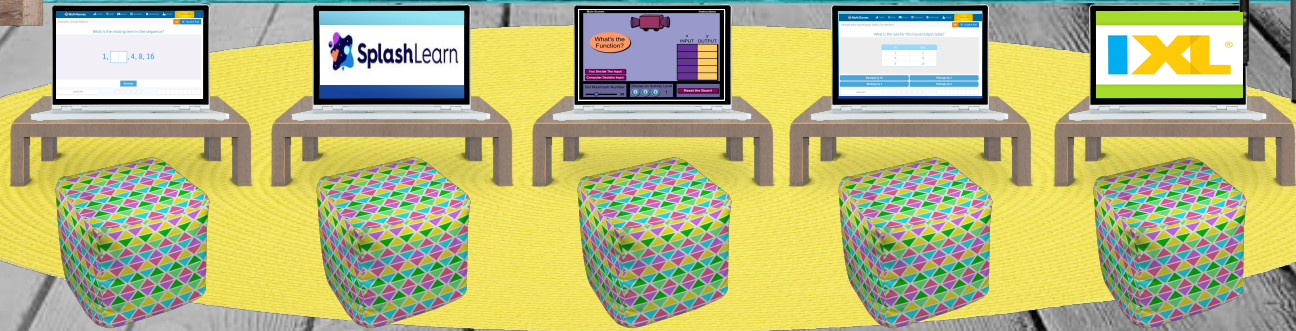
Decreasing Growing Pattern

- Subtraction
- Division

43, 41, 38, 34
120, 60, 20, 5

Source: By The Works

PATTERNS are everywhere



PLACE VALUE

MILLIONS	THOUSANDS	UNIT
HUNDREDS TENS ONES	HUNDREDS TENS ONES	HUNDREDS TENS ONES

987,654,321



classkick

Place Value - Whole Numbers

NUMBEROCK
PLACE VALUE
3:55

math Antics

PLACE VALUE

MILLIONS	HUNDREDS THOUSANDS	TEN THOUSANDS	THOUSANDS	HUNDREDS	TENS	ONES
4	9	2	8	6	5	3

WAYS TO SHOW A NUMBER

STANDARD FORM	WORD FORM
4,928,653	Four million, nine hundred twenty-eight thousand, six hundred fifty-three
BASE TEN FORM	EXPANDED FORM
$4 \times 1,000,000 + 9 \times 100,000 + 2 \times 10,000 + 8 \times 1,000 + 6 \times 100 + 5 \times 10 + 3 \times 1$	$4,000,000 + 900,000 + 20,000 + 8,000 + 600 + 50 + 3$

Decimal to the right

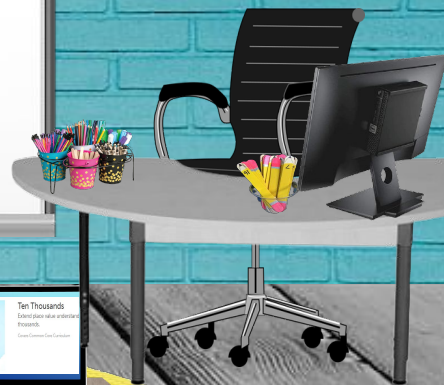
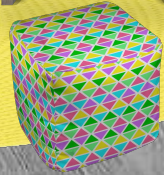
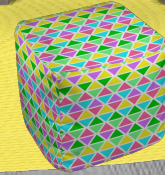
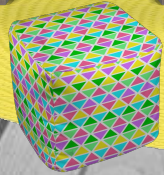
Millions	Thousands	One	Ten	Hundred
----------	-----------	-----	-----	---------

What number is shown by the place value blocks?

Place value tables

Use the place value chart to write 01,239.
Enter a 1 digit number in each box of the place value chart.

Ten thousands	Thousands	Hundreds	Tens	Ones
			2	9

PLACE VALUE

MILLIONS THOUSANDS UNIT

TENS ONES TENS ONES TENS ONES

987,654,321



classkick Place Value - Decimals

Decimal PLACE VALUE

3.91

9/10

654213

Decimal place value

100's 10's 1's 1/10's 1/100's

10² 10¹ 10⁰ 10⁻¹ 10⁻²

Khan Academy 4:00

1.00 0.1 0.01

Decimal Place Value

what is the value of each digit in the number below?

200	70	3	.	.4	.06	.008
2	7	3	.	4	6	8
Hundreds	Tens	Ones	Decimal place	Tenths	Hundredths	Thousandths

Decimal to the right

Millions	Thousands	Ones	10's	100's	1000's
----------	-----------	------	------	-------	--------

Are all about expressing



1. Math Games for 4th Grade
 2. PLACE VALUE PIRATES
 3. Math Games for 4th Grade
 4. Math Games for 4th Grade
 5. MATHPUP DEFENSE (DECIMALS) PLAY GAME MORE GAMES



ROUNDING NUMBERS
10
3:30

Shelf containing: cacti, dice, cards, and a sign that says "Swim Team! Rounding Practice Profitable game!"

classkick

Rounding

Whole Numbers

Round 423,275 to the nearest **thousand**

423,275 → 424,000

423,000 → 423,000

423,000 423,500 424,000

Play 0/1 024/327

Round whole numbers to nearest thousand

Rounding

math Antics

Decimals

Round 9.564 to the nearest **hundred**

9.564 → 9.6

Worked example: Rounding decimals to nearest tenth

Drag the point to 12.5 on the number line.

9 10 11 12 13 14 15 16 17 18 20 21

What is 12.5 rounded to the nearest ten?

Let's see, this is 12 and 12 is halfway between 12 and 13

Rounding decimals on the number line

Rounding Rhyme

Find your place
Look right next door,
Five or greater
Add one more.
All numbers in front
Stay the same,
All numbers behind Zero's
your name.

Soccer Math Rounding

Round whole numbers

PLAY BALL

Round decimals

Round decimals using a number line

Desk with computer monitor, office chair, and math supplies.



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Equality

An Equation is like a Balance Scale

9-3+2-0 = 0+1-1+8

Equal

18 ≠ 8 | Not equal

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Equal sign

Expression
a representation of a quantity

5
4 + 3
8 - 2
2 x 7

Inequality

≠

5 + 6 ≠ 4 + 8
9 - 4 ≠ 3 x 3
5 x 7 ≠ 35 + 5

Equality

=

10 + 8 = 36 ÷ 2
8 x 4 = 190 - 158
16 x 3 = 8 x 6

greater than less than equal

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Compare and Order

Whole Numbers

Comparing Large Numbers

$$728 < 796$$

728 is less than 796

Decimals

Comparing Numbers

< > =

Compare
Order

Created with Doceri

Compare.

$$98,989 > 98,899$$

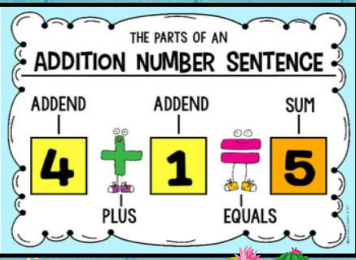
$90,000 + 8,000 + 900 + 80 + 9$
 $90,000 + 8,000 + 800$

Grade 4 - Ordering Numbers

the chart below. Put the stadiums in order from greatest to least based on their seating capacity.

Seating Capacity	56,000	57,333	45,000
	5	6	5
Polo Grounds	56,000	57,333	45,000
Shea Stadium	56,000	57,333	45,000
Citi Field	56,000	57,333	45,000





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Add and Subtract Whole Numbers

Addition

Subtraction

Re grouping

$$\begin{array}{r} 1 \\ 1850 \\ + 354 \\ \hline 04 \end{array}$$

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$$48,029 + 233,930$$

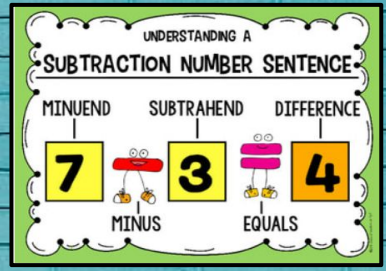
Adding multi-digit numbers: 48,029+233,930

$$\begin{array}{r} 135 \\ - 27 \\ \hline \end{array}$$

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$$389,002 - 76,151$$

Multi-digit subtraction: 389,002-76,151



Multi-digit addition

Multi-digit addition

Multi-digit subtraction

Multi-digit subtraction

Multi-digit subtraction



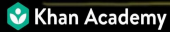
Adding and Subtracting Decimals

A Fall Out Boy Parody

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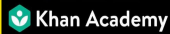
Add and Subtract Decimals

Adding decimals
example 1



Adding decimals: $9.087 + 15.31$

Decimals:
Subtracting (ex.1)



Subtracting decimals: $9.005 - 3.6$

decimal

$$\begin{array}{r} 3.27 \\ + 4.15 \\ \hline \end{array}$$

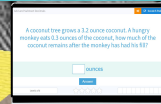
whole

$$\begin{array}{r} 327 \\ + 415 \\ \hline \end{array}$$

Line up the
decimal points

tens
ones
tenths

$$\begin{array}{r} 1.2 \\ + 15.3 \\ \hline 16.5 \end{array}$$



Rounding Words

Probably
Estimate
About
Round



classkick Estimation with Rounding

Rounding
with a
Number Line

$$478 \rightarrow 500$$

$$96 \rightarrow 100$$

$$500 - 100 = 400$$

Estimation with
Addition

Estimating when adding large numbers

$$398 + 251 \approx$$

$$400 +$$

$$398 \quad 251$$

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Estimation with
Subtraction

Estimating when subtracting large numbers

$$282 - 59 \approx$$

$$280 - 60$$

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Rounding Rhyme

Find your place
Look right next door,
Five or greater
Add one more.
All numbers in front
Stay the same,
All numbers behind Zero's
your name.





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2x1 & 2x2 Multiplication

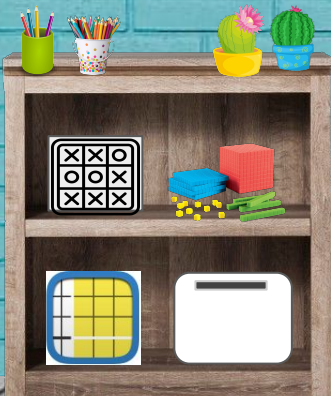
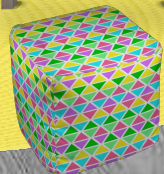
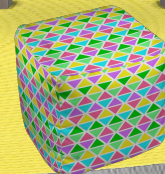
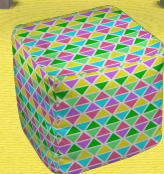
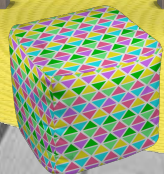
2X1 Digit

2X2 Digit

2-digit Multiplication

$\begin{array}{r} 67 \\ \times 23 \\ \hline 201 \end{array}$	<ol style="list-style-type: none"> 1. Multiply by the one's place 	$\begin{array}{r} 67 \\ \times 23 \\ \hline 201 \\ \end{array}$	<ol style="list-style-type: none"> 2. Put a zero to hold the one's place
$\begin{array}{r} 67 \\ \times 23 \\ \hline 201 \\ 1340 \\ \hline 1340 \end{array}$	<ol style="list-style-type: none"> 3. Multiply by the ten's place 	$\begin{array}{r} 67 \\ \times 23 \\ \hline 201 \\ 1340 \\ \hline 1340 \end{array}$	<ol style="list-style-type: none"> 4. Add the numbers

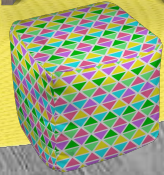
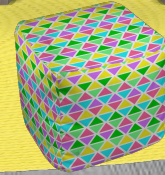
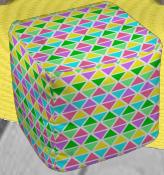
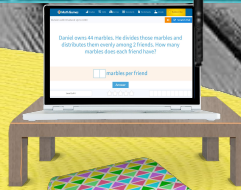
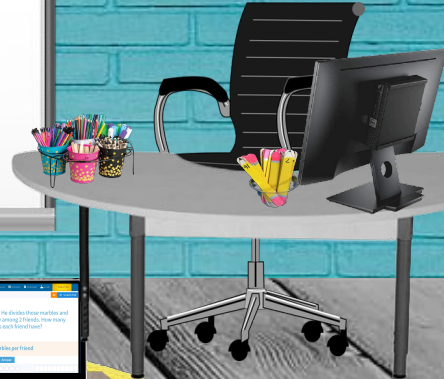
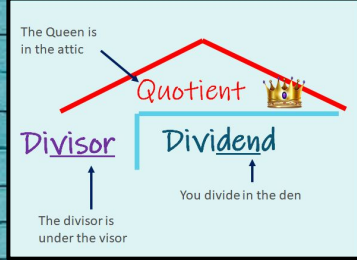
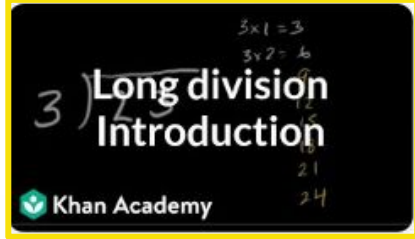
Lattice Method



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Long Division



THE LOWEST NUMBER THAT BOTH NUMBERS CAN GO INTO

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LCM and GCF

Least Common Multiple & Greatest Common Factor

Prime Factorization
Set of Prime Numbers
 $2 \times 3 \times 5$

LCM of 3 and 12

Multiples of 3: 3 6 9 12

Multiples of 12: 12 24

LCM of 3 and 12 =

GCF is partner to LCM

Greatest Common Factor Lowest Common Multiple

LCM and GCF word problems

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NUMBEROCK

ADDING & SUBTRACTING FRACTIONS

$3/6 = 6/12$

$1/4 = 3/12$

TIC 5000

2:39

Rags to Riches

START

SCORE	RECORD	STREAK
100	100	100
200	200	200
300	300	300
400	400	400

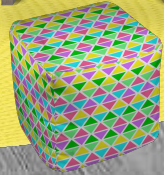
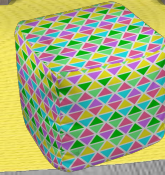
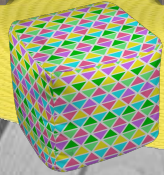
Factor Feeder

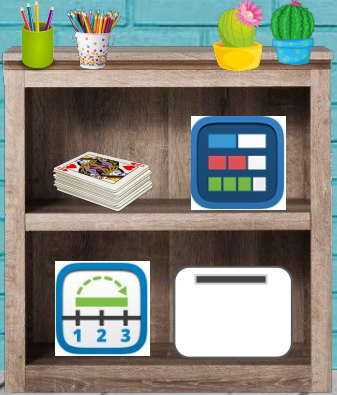
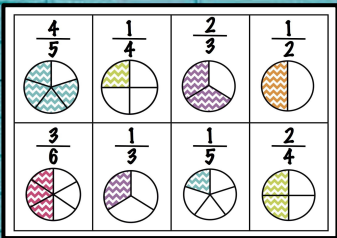
Instructions

Start

CATCH THE STARS

MULTIPLES





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Fractions

Intro to Fractions

2:27

Equal parts of circles & rectangles

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Equal parts of circles and rectangles

Parts of something

Math Antics - Types of Fractions

FRACTIONS ON A NUMBER LINE by NUMBEROCK

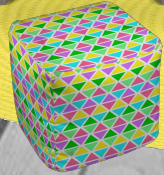
NUMBEROCK EQUIVALENT FRACTIONS

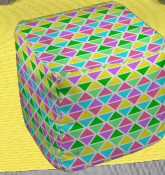
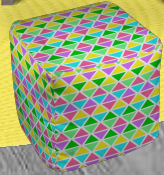
NUMBEROCK FRACTIONS TO DECIMALS

equivalent fractions

You can make equivalent fractions by multiplying or dividing the numerator and denominator by the same number.

$\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{8}{16} = \frac{16}{32}$



ADDING & SUBTRACTING FRACTIONS EXPLAINED!

$$\begin{array}{r} 3 \times 7 \\ 3 \times 9 \end{array} - \begin{array}{r} 2 \times 9 \\ 3 \times 9 \end{array} \rightarrow \begin{array}{r} 3 \\ 27 \end{array}$$

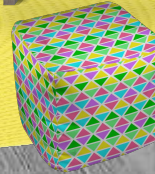
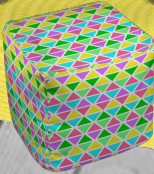
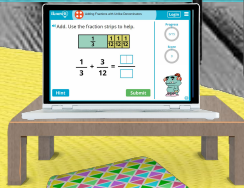
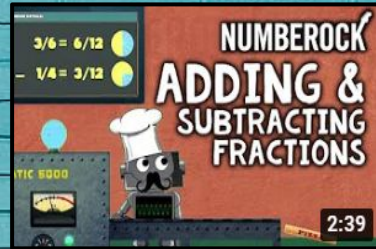
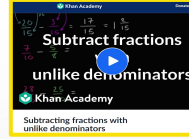
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Add and Subtract Fractions

Like Denominators



Unlike Denominators



		
greater than	less than	equal



classkick **Compare and Order Fractions**









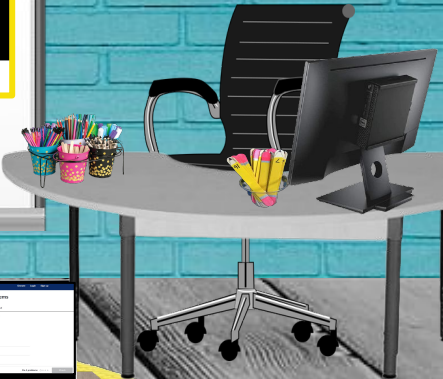
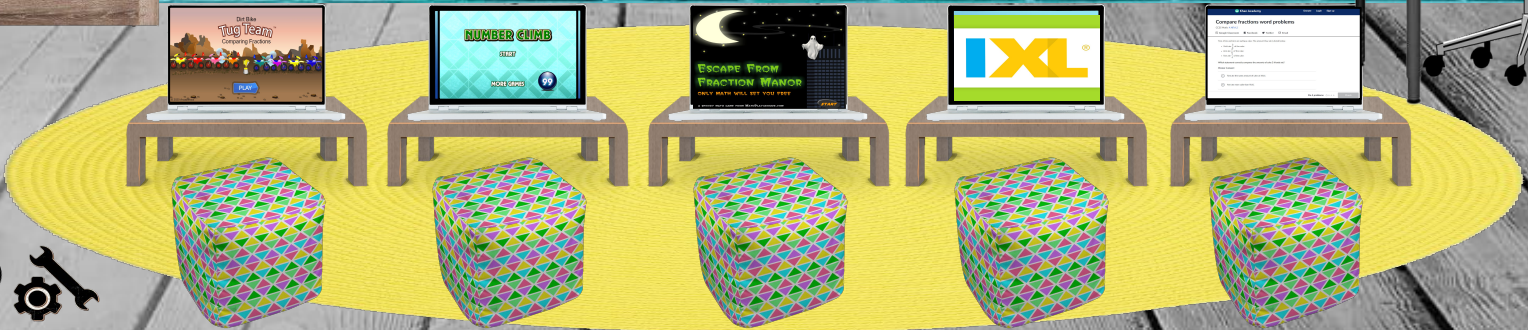
Compare Fractions
Using Cross Multiplication

Example:

$5 \times 4 = 20$ $\frac{4}{7} < \frac{3}{5}$ $7 \times 3 = 21$
 $\frac{4}{7}$ $<$ $\frac{3}{5}$
 20 21

$7 \times 2 = 14$ $\frac{2}{3} > \frac{4}{7}$ $3 \times 4 = 12$
 $\frac{2}{3}$ $>$ $\frac{4}{7}$
 14 12

$5 \times 4 = 20$ $\frac{4}{10} = \frac{2}{5}$ $10 \times 2 = 20$
 $\frac{4}{10}$ $=$ $\frac{2}{5}$
 20 20


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Probability

Math Antics - Basic Probability



$P(A \cup B) = P(A) + P(B)$

Addition rule for probability

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Probability example (2)

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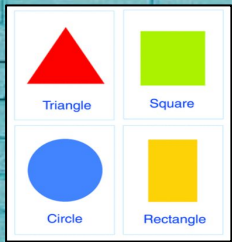
Probability = $\frac{\text{\# of favorable outcomes}}{\text{Total \# of possible outcomes}}$

Impossible	Unlikely	Equally likely	Likely	Certain
0		1/2		1

The probability song

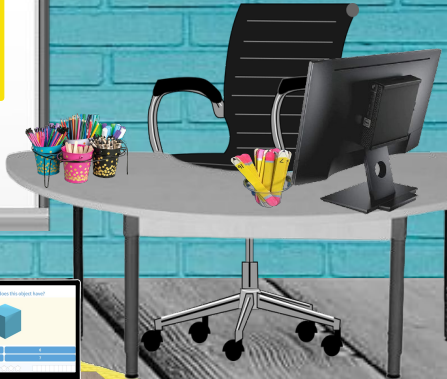
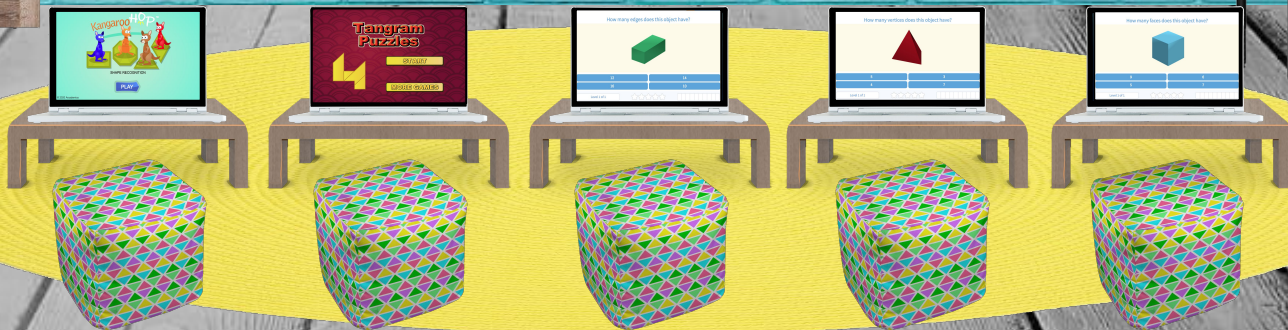
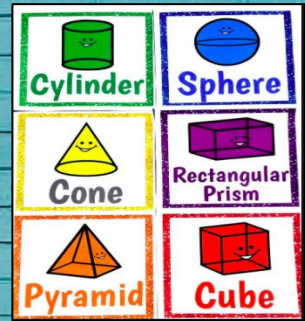
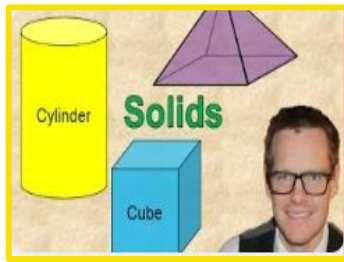
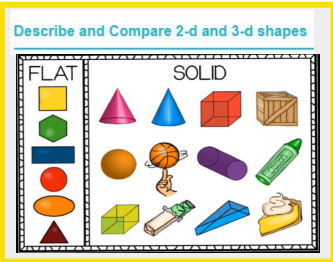
sung along to "The Lazy Song" by Bruno Mars.

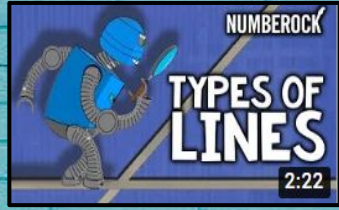




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Plane and Solid Figures (2D & 3D Shapes)

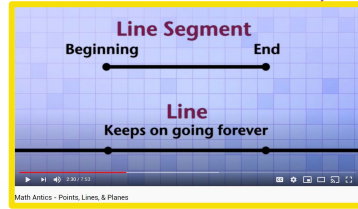




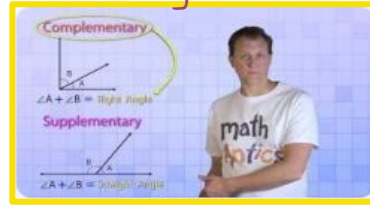
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Lines, Rays, and Angles

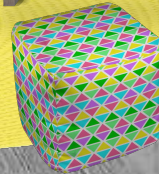
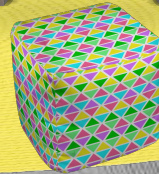
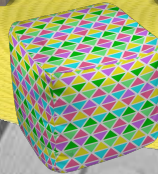
Points, Lines & Rays



Angles



Parallel, Perpendicular, & Intersecting Lines



AREA & PERIMETER



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Perimeter and Area

Perimeter
around a
shape

7:29

Area

$A = L \times W$ $A = \frac{1}{2}(B \times H)$

Perimeter of ABCD = $7 + 6 + 7 + 5$

Perimeter & area

Khan Academy

Area & Perimeter

Perimeter (P): The distance around the outside of a shape

If units: If units: If units: If units:

$P = 2 \times (side + side)$ $P = \text{Sum of all sides}$
 $P = 2(4+5)$ $P = 2+4+2+4+6$
 $P = 20$ units $P = 20$ units

Area (A): The number of square units inside a shape. $A = \text{length} \times \text{width}$

If units: If units: If units: If units:

$A = 2 \times 4$ $A = 12$ square units or 12 sq' $A = 12 \times 4$ $A = 27$ square units

To find the area of an irregular shape, divide rectangles. Find the area of each, then find the total.

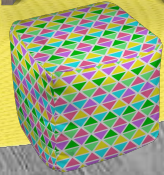
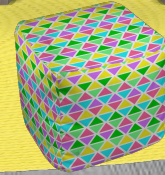
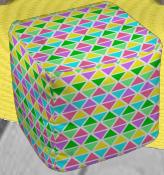
Perimeter Shape Game

Area Shape Game

Finding the Area and Perimeter of Rectangles

ZOO DESIGNER

IXL



Measuring with a Ruler

How to Read A Ruler

$5\frac{3}{4}$ in

classkick

Measurement

NUMBEROCK

INCHES FEET & YARDS

2:09

NUMBEROCK

OUNCES POUNDS TONS

2:07

NUMBEROCK

CAPACITY

2:56

NUMBEROCK

METRIC SYSTEM

2:37

Gallon Man




All About Time

60	seconds in one minute
60	minutes in one hour
24	hours in one day
7	days in one week
52	weeks in one year
365	days in one year
12	months in one year


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Telling Time

The minute hand to the nearest minute



What is the time?




9:23
23 minutes past 9

matholia

Telling Time

Step 1


Hour Hand



Look at the short hand, what it's passed at 12 and STOP!

Step 2

Minute Hand




Look at the long hand, start at 12 and count by 5's!

3:05


ALL TIME

analog clock digital clock



3:00

- The short hand is the hour hand
- The long hand is the minute hand
- There are 60 minutes in 1 hour
- 30 minutes = a half hour
- On a digital clock, o'clock = :00
- Half past the hour is :30
- The hour hand is between two numbers when it is the half hour



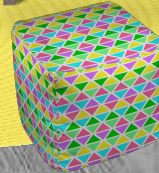
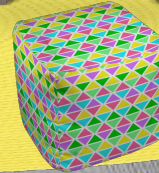
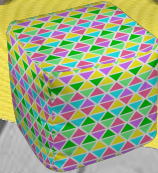
hours:minutes
6:27



9:30












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Elapsed Time


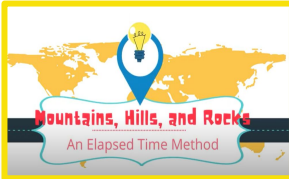
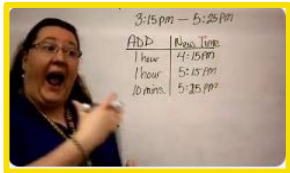
Tools For the Timeline



-  Use a **mountain** for an hour
-  Use a **hill** for large minute intervals
-  Use a **rock** for a one minute interval




Current Time **3:00** + **3 Hours**

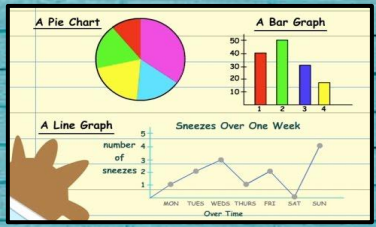



Elapsed Time

Mountains, hills, and rocks







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Analyzing Data/Graphs

Creating Bar Graphs

Reading bar graphs: colors

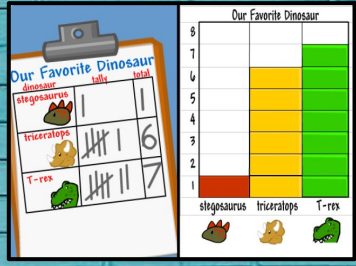
CREATE A GRAPH

Bar Line Area Pie XY

Please select a graph type to begin

line Graph

Reading line graphs



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Word Problems

Addition

Three digit addition word problems

Multiplication

Multiplication word problem: soda party

Elapsed Time

Time word problem: puzzle

Subtraction

Three digit subtraction word problems

Division

Division word problem: blueberries

Graphing

Interpreting bar graphs: alligators

Solve!

1. Write your **MMMM** statement.
2. Solve the problem using:
 - Addition
 - Subtraction

What is an 'MMMM' Statement?

2-step addition word problems within 100

2-step subtraction word problems within 100

Multiplication and division word problems within 100

Read bar graphs (2-step problems)

Telling time word problems (within the hour)

