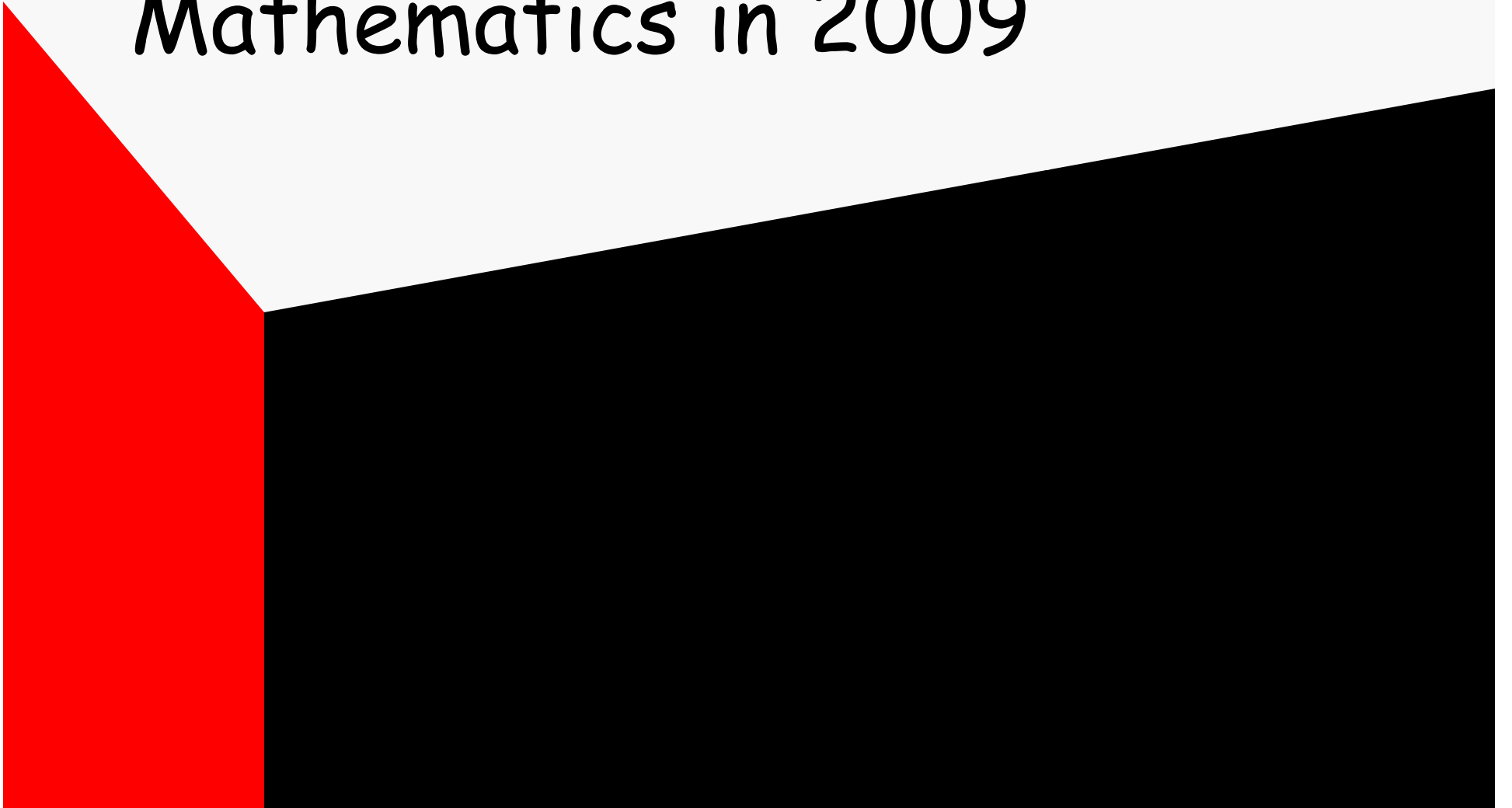


Mathematics in 2009



What was Math like when we went to school?

$$8 \times 1 = 8$$

$$8 \times 2 = 16$$

$$8 \times 3 = 24$$

...

$$8 \times 12 = 96$$

$$\begin{array}{r} 2 \\ + 2 \\ \hline 4 \end{array}$$

$$789 \times 23 = ?$$

$$3x + 5 = 7 - (x + 10)$$

What is Mathematics now?

There are
5 strands
of math

Mathematics ESL ESD French IEP

Number Sense and Numeration

Measurement

Geometry and Spatial Sense

Patterning and Algebra

Data Management and Probability

Grades 1-6

What is Mathematics?

One of the
five strands
is

*Number
Sense and
Numeration*

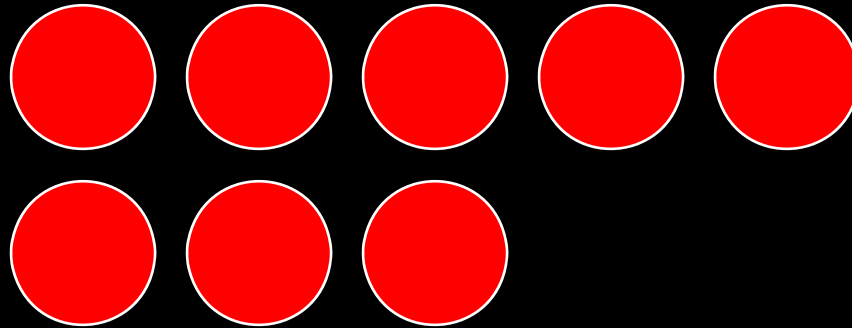
Mathematics <input type="checkbox"/> ESL <input type="checkbox"/> ESD <input type="checkbox"/> French <input type="checkbox"/> IEP			
Number Sense and Numeration			
Measurement			
Geometry and Spatial Sense			
Patterning and Algebra			
Data Management and Probability			

Grades 1-6

What is Mathematics?

Number Sense and Numeration

How many do you see?



What is Mathematics?

Number Sense and **Numeration**

*Adding &
Subtracting*

*Multiplying &
Dividing*

Fractions, Decimals
and More

What is Mathematics?

The second strand on the report card is . . .

Measurement

Mathematics <input type="checkbox"/> ESL <input type="checkbox"/> ESD <input type="checkbox"/> French <input type="checkbox"/> IEP			
Number Sense and Numeration			
Measurement			
Geometry and Spatial Sense			
Patterning and Algebra			
Data Management and Probability			

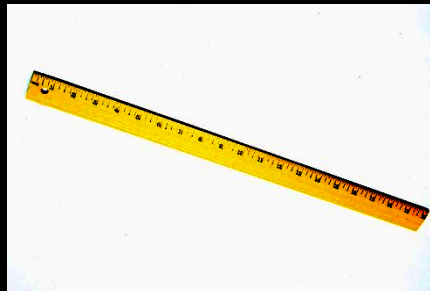
Grades 1-6

What is Mathematics?

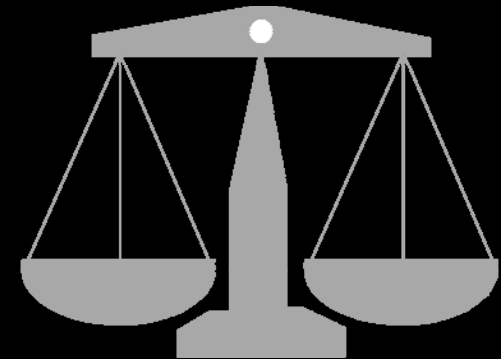
Measurement



Time



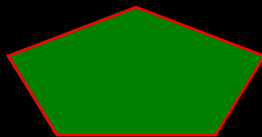
distance



Mass

Volume?

Surface Area?



Perimeter?

Area?

What is Mathematics?

*Geometry and
Spatial
Sense*

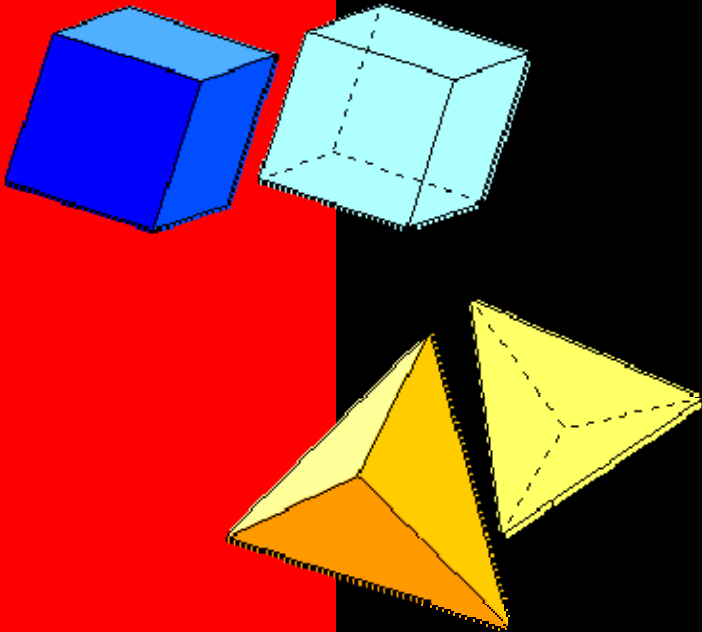
is third on the
report card

Mathematics <input type="checkbox"/> ESL <input type="checkbox"/> ESD <input type="checkbox"/> French <input type="checkbox"/> IEP			
Number Sense and Numeration			
Measurement			
Geometry and Spatial Sense			
Patterning and Algebra			
Data Management and Probability			

Grades 1-6

What is Mathematics?

Geometry and Spatial Sense



What would these look like from the top? The side?

How are these the same? Different?

How could you make one?

What are the names of these?

What is Mathematics?

Another
strand of
Math is . . .

*Patterning and
Algebra*

Mathematics <input type="checkbox"/> ESL <input type="checkbox"/> ESD <input type="checkbox"/> French <input type="checkbox"/> IEP			
Number Sense and Numeration			
Measurement			
Geometry and Spatial Sense			
Patterning and Algebra			
Data Management and Probability			

Grades 1-6

What is Mathematics?

The last strand
on the report
card is . . .

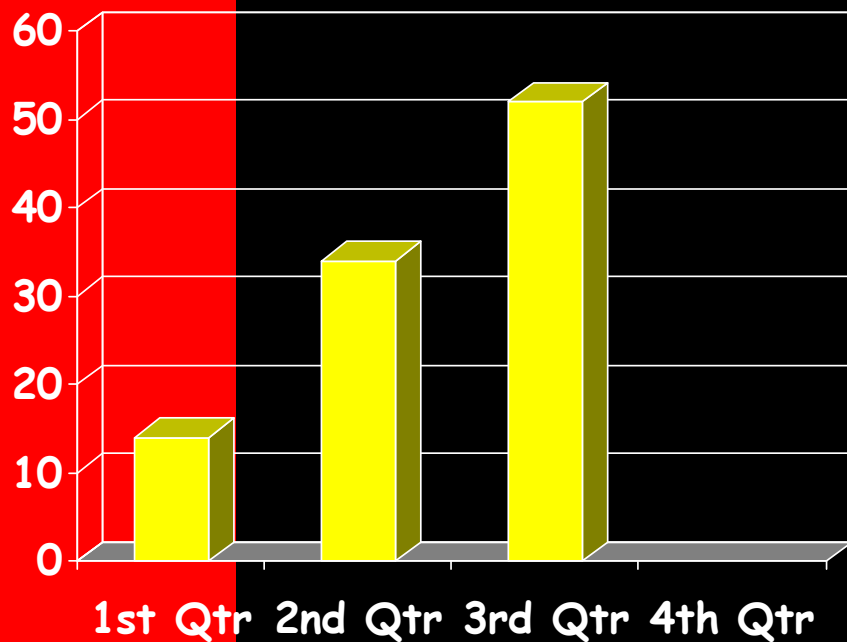
*Data
Management
and
Probability*

Mathematics <input type="checkbox"/> ESL <input type="checkbox"/> ESD <input type="checkbox"/> French <input type="checkbox"/> IEP			
Number Sense and Numeration			
Measurement			
Geometry and Spatial Sense			
Patterning and Algebra			
Data Management and Probability			

Grades 1-6

What is Mathematics?

Data Management and Probability



What might be the title of this graph?

What else is missing from this graph?

Make a story for this graph.

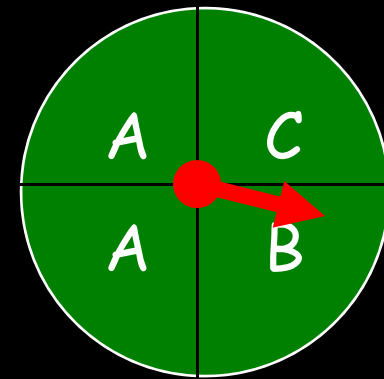
What do you think will happen in the fourth quarter?

What is Mathematics?

Data Management and Probability

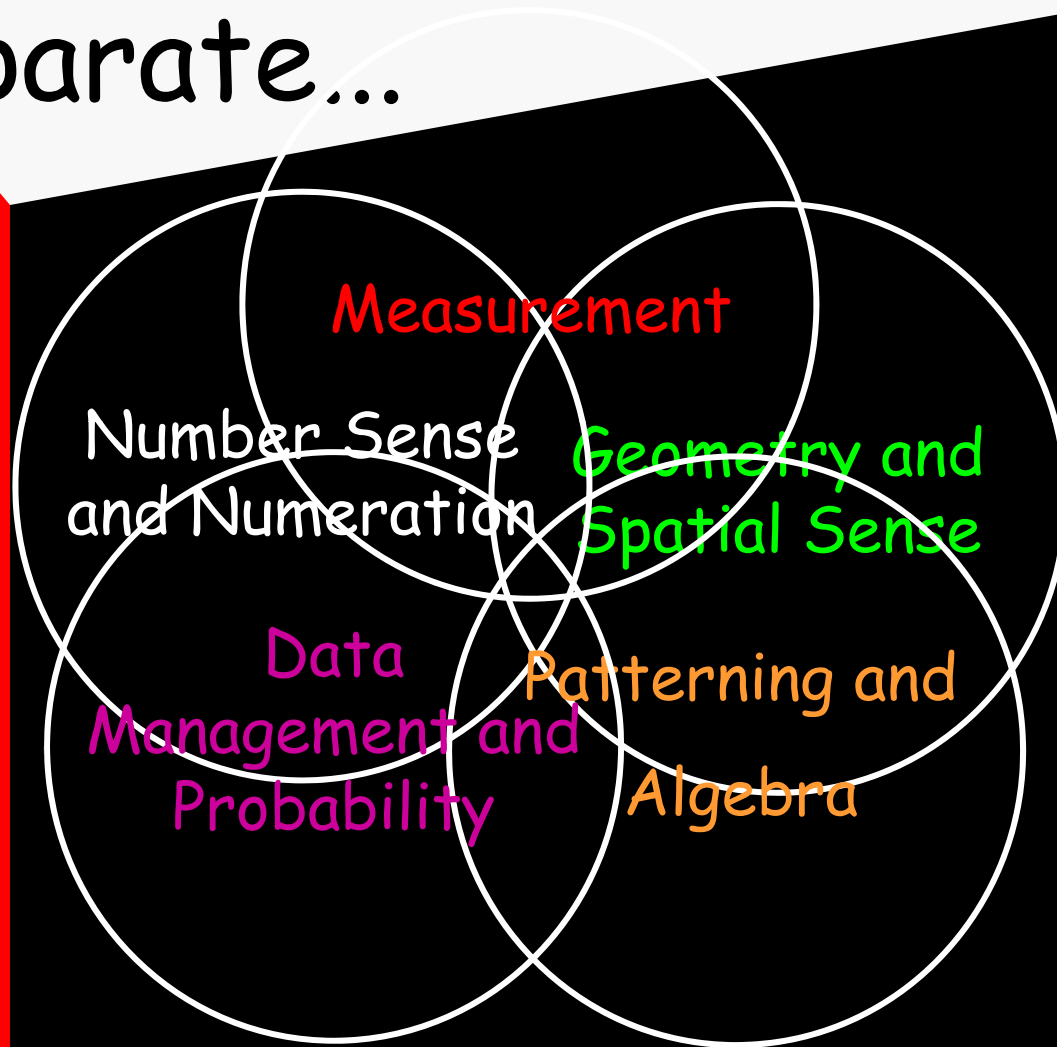


What is the chance of rolling a 7? Explain your answer.



What is the probability of spinning an A? Why do you think this?

But these 5 "strands" aren't separate...



Assessment and Evaluation



A student's mark in Math depends on their being able to . . .

- understand the concepts
- apply the concepts
- solve problems
- communicate their answers

Assessment



The most important thing for students to develop is their ability to ...

THINK!

Things That Parents' & Guardians'

Can Do to Help Children

Understand Mathematics



What To Do At Home:

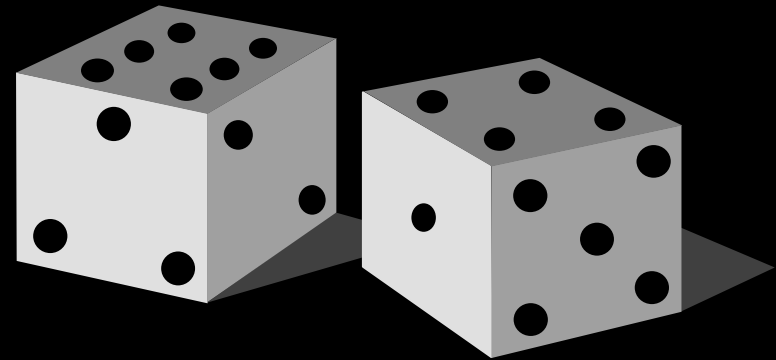
Play games

- card games
 - "21"
 - go fish
 - rummy
 - hearts
 - concentration
 - and more

What To Do At Home:

Play games

- dice games
 - "pig"
 - backgammon
 - lots and lots more



What To Do At Home:

Play car games

- "bizz, buzz"
- NIM
- magnetic checkers, chess, backgammon

What To Do At Home:

Children can. . .

create a
"chore"
timetable

APRIL				
Dishes	Garbage	Dusting	Raking	Laundry
Sam	Mom	Ben	Grace	Dad

What To Do At Home:

Children can . . .

*measure ingredients
while cooking . . . change
a recipe by doubling it or
halving it*

Brownies

Melt $\frac{1}{2}$ c shortening with 2 ounces of unsweetened chocolate squares.

Beat 2 eggs then slowly add 1 c of sugar. Beat until light.

Add $\frac{3}{4}$ c flour, $\frac{1}{2}$ tsp baking powder, $\frac{1}{2}$ tsp salt and 1 tsp vanilla. Mix.

Bake in an 8"x8"x2" pan at 350° for 30 minutes.

What To Do At Home:

Ask children to . . .

- tell the time
- set their alarm clock
- plan their TV watching schedule. . .

What To Do At Home:

Children can . . .

Items

baseball	\$6.99
shirt	\$21.99
CD	\$15.99
pencil case	\$5.99
shoes	\$59.99
shorts	\$29.99

create a shopping list from a flyer and estimate the cost of the items

This will cost about $5+20+15+5+60+30$. . . About \$135 or \$140 . . . Plus tax10% is 14 and 5% is 7 . . . So another \$20 . . . about \$160 . . .

What To Do At Home:

Children can . . .

Keep track of
their allowance
and bank account.



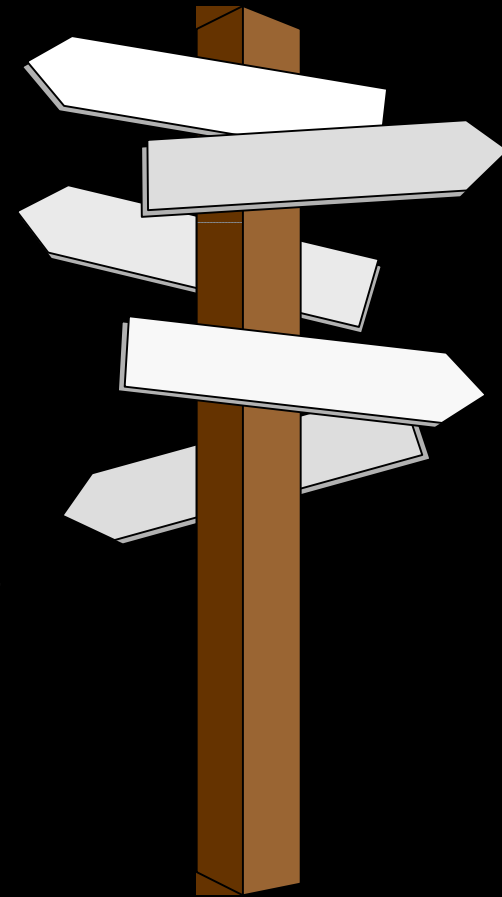
Pay for items when shopping and
check for the correct change.

What To Do At Home:

Children can . . .

Provide directions;

- ask them to explain how to get to the store
- ask them to draw a map of how to get to the store
- ask them to read a map and describe how to get somewhere unknown



What To Do At Home:



- provide a positive work environment
- be supportive
- ask questions which require explaining

What To Do At Home:

- Praise your child for his or her ideas and participation! The *correct answer* is not the ultimate goal, rather, *effort* and *expressing his/her thinking* is what's important.

Internet Math Sites for Parents

- www.mathforum.org/parents.citizens.html
Perhaps the best math site on the Internet!
- www.math.com/
Free math lesson and math homework help from basic math to algebra.
- www.nctm.org/families/
Many concrete ideas of what to do at home are provided here.
- www.amathsdictionaryforkids.com/
A place where definitions come to life with meaning.