#### BEFORE ...

**EXPLAIN** the problem to myself.

## MAKE A PLAN to solve the problem

- What is the question?
- What do I know?
- What do I need to find out?
- What tools/strategles will I use?

#### DURING ...

PERSEVERE (Stick to it!)

MONITOR my work

ASK myself, "Does this make sense?"

CHANGE my plan if it isn't working out

#### AFTER...

#### CHECK

- Is my answer correct?
- How do my representations connect to my solution?

#### EVALUATE

- What worked/didn't work?
- How was my solution similar or different from my classmates?

## Practices that indicate a lack of support for mathematics literacy:

- Complete the textbook
- Lack of interest in collecting/presenting data
- Focus on Procedure not Process
- No connection to the real world
- Facts in Isolation
- Math as its own subject

### Where do we use math?

- Shopping
- Sports Statistics
- Nutrition
- Travel
- "Best Bets"
- Weather
- Cooking
- Banking
- Designing Spaces
- Scheduling/Time
- Picking out our Clothes
- Laundry

## Seven Strands of Math

#### Numeration & Counting

Say, Read, Write Numbers - Count Patterns, Place Value, Whole Numbers, Fractions **Operations** Number Facts, Fact Families

## Problem Solving & Mental Math

Puzzles, Brain Teasers, Riddles

#### Data Collection

Graphs, Tables, Charts, Glyphs

#### Geometry

2 & 3 Dimensional Shapes

#### Measure/Reference

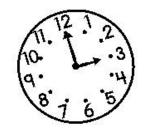
Width, Length, Area, Weight Clock, Calendar, Time Lines, Ordinal #'s

#### Money

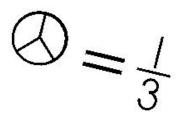
Value of Coins, Count, Problem Solve

#### Rules/Patterns

Relationships, Sequence, Functions



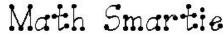
# Math

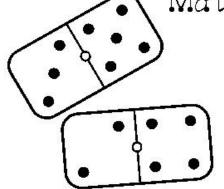


## AX.

## Journal







#### Draw a Story Problem

Draw a picture of your story problem.

Write your story problem.

| + | +               |
|---|-----------------|
| + | + + + + + + + + |

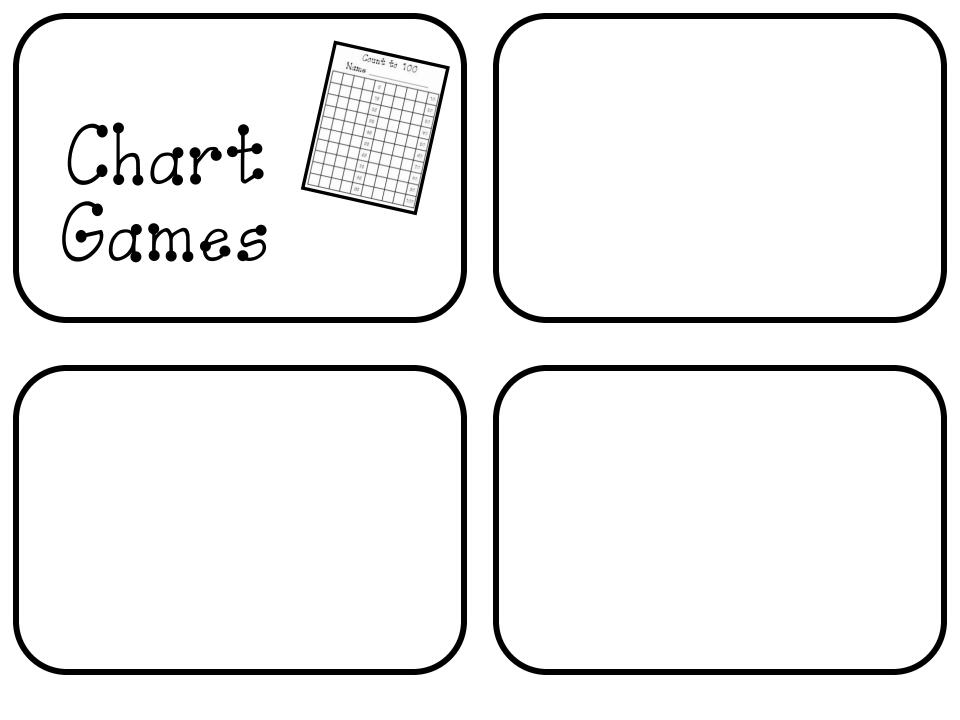
# Trash Place Value Faceoff Ones Tens Hundreds

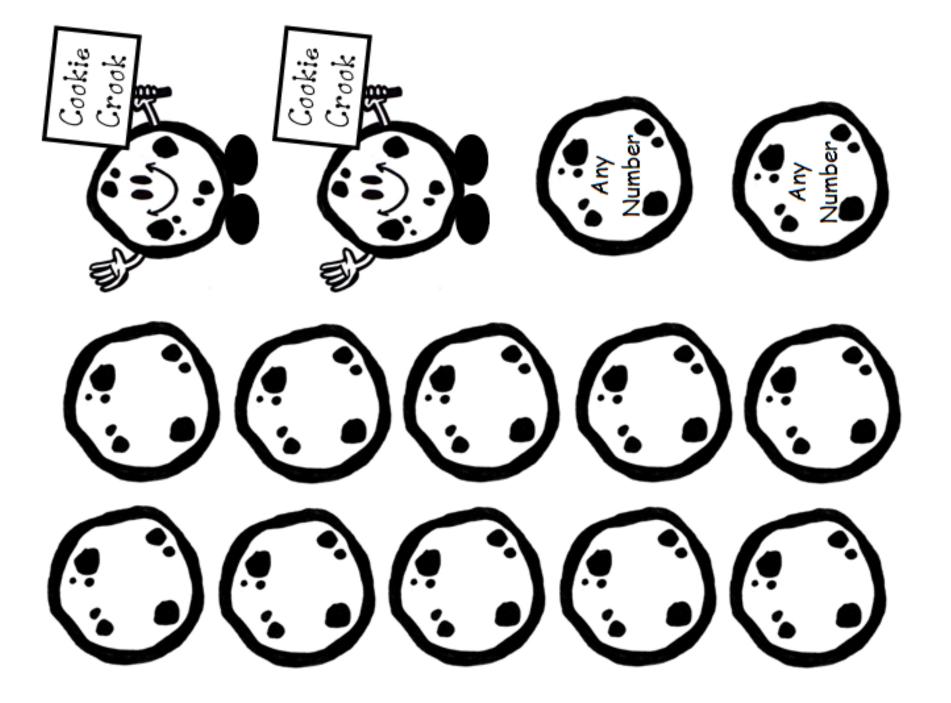
| 2        | Number Deal |              |
|----------|-------------|--------------|
| Partners | &           | <u></u>      |
|          |             | Number       |
|          |             | Which one is |
|          |             | Number       |
|          |             |              |

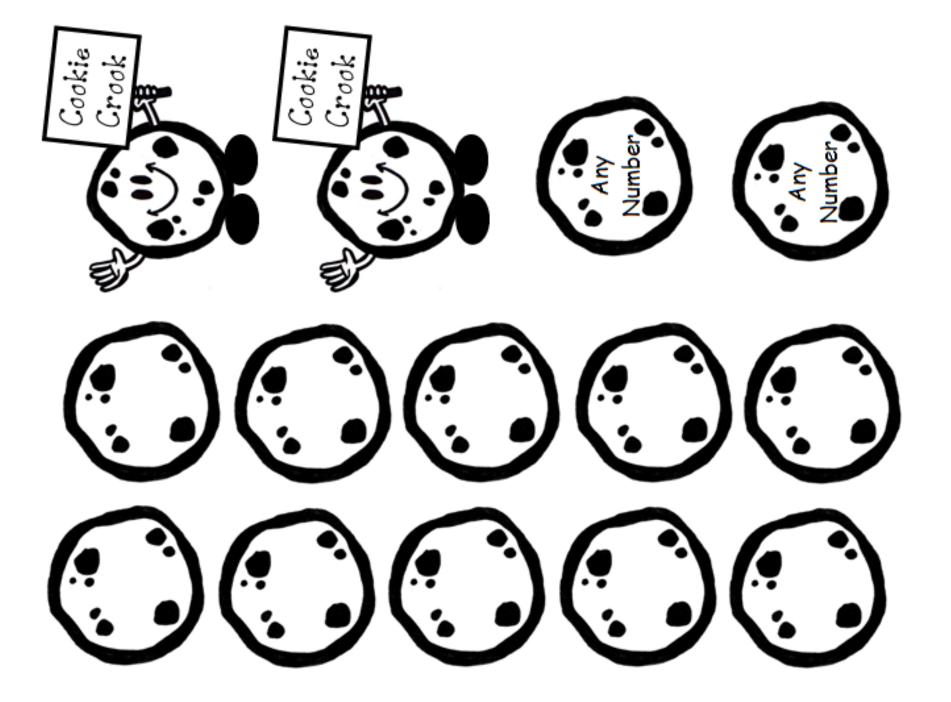
# Count to 100

Name

| 10  | 20  | 20 | 40 | 50 | 09 | 02 | 80 | 90 | 100 |
|-----|-----|----|----|----|----|----|----|----|-----|
|     |     |    |    |    |    |    |    |    |     |
|     |     |    |    |    |    |    |    |    |     |
|     |     |    |    | 2  |    |    |    |    |     |
|     |     |    |    |    |    |    |    |    |     |
| iO. | - 2 | 25 | 35 | 45 | 55 | 99 | 22 | 85 | 95  |
|     |     |    |    |    | 6  |    |    |    |     |
|     |     |    |    |    |    |    |    |    |     |
|     |     |    |    |    |    |    |    |    |     |
|     |     |    |    |    |    |    |    |    |     |





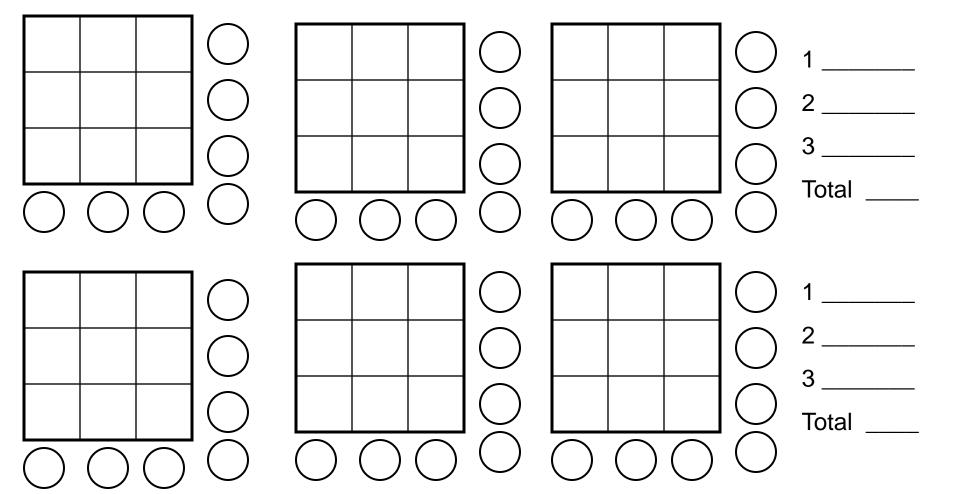


#### Cross-Out Singles

**Object:** To cross out any single sum and then find the total of the sums not crossed out.

Materials: dice

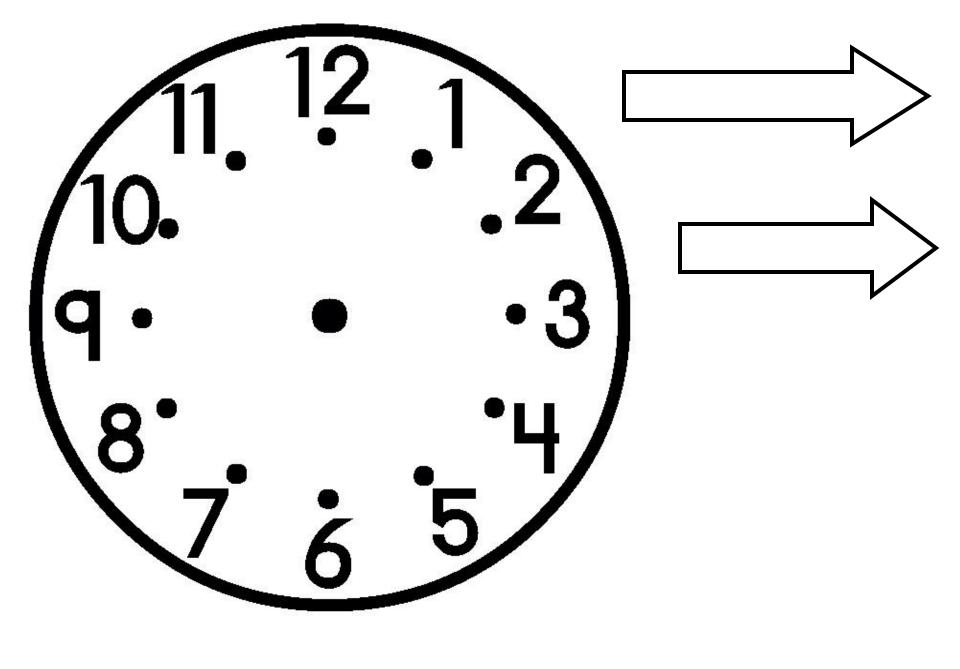
Directions: Choose a partner. Take turns rolling the die and recording your roll on your answer sheet in any square you choose. Once all nine squares are filled, find the sums of the rows, columns, and diagonal, and record them in the circles. Any sum that appears only once is crossed out. The total of the sums that are not crossed out is the score for the first round. Once you and your partner play all three games, add the total of the score for all three rounds. This is your final score.

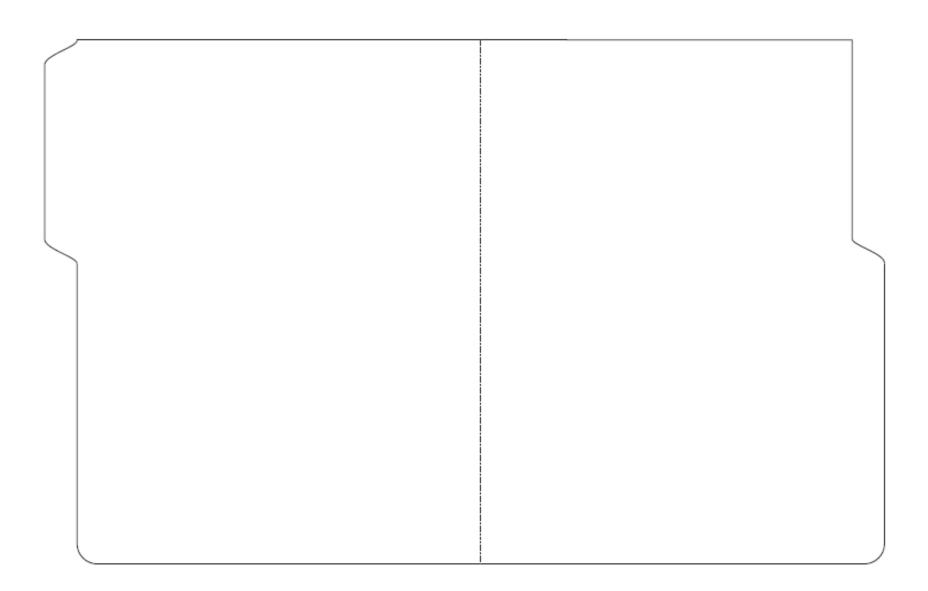


# Math Vocabulary

| 2           | ,                       | ,                | ,                             |
|-------------|-------------------------|------------------|-------------------------------|
|             | -                       | 7                | 6                             |
| About       | 444                     | Addond           | 1/4 Hour                      |
| Add         | Addend                  | Analyze Data     | 1/2 Inch                      |
| Attribute   | After                   | Area             | Acute Angle                   |
| Bar Graphs  | And (+)                 | Attributes       | Addend                        |
| Behind      | Before                  | Capacity         | Algorithm                     |
| Below       | Between                 | Cone             | Area                          |
| Beside      | Capacity                | Cylinder         | Bar Graphs                    |
| Bottom      | Closer                  | Dollar           | Capacity                      |
| Calendar    | Eleven                  | Equal Parts      | Centimeter                    |
| Clock       | Empty Set               | Equal To         | Certain                       |
| Circle      | Equals (=)              | Expanded Form    | Compare                       |
| Create      | Equal To                | Fewer            | Congruent                     |
| Dime        | Facts                   | Fourths          | Cup                           |
| Down        | Fall                    | Greater Than (>) | Customary                     |
| Eight       | Farther                 | Growing Patterns | Data                          |
| Extend      | Fifth                   | Halves           | Decimal Notation              |
| Five        | First                   | How Many         | Denominator                   |
| Four        | Fourth                  | Less Than (<)    | Difference                    |
| Friday      | Greater Than (>)        | Numerals         | Digit                         |
| In Front Of | Half                    | Ordinal Numbers  | Edges                         |
| Join        | How Many Fewer?         | Out Of           | End Points                    |
| Less        | How Many More?          | Parallelogram    | Estimates                     |
| Monday      | Hundred                 | Perimeter        | Equals (=)                    |
| Money       | Length                  | Pictographs      | Equally Likely                |
| More        | Less Than (<)           | Place            | Equation                      |
| Next To     | Minus (-)               | Sphere           | Equivalent                    |
| Nickel      | Numerals                | Sum              | Even                          |
| Nine        | Place Holder            | Symmetry         | Expanded Form                 |
| Numeral     | Plus                    | Thirds           | Expression                    |
| On          | Same As                 | Thousand         | Faces                         |
| One         | Second                  | Value            | Factor                        |
| Over        | Spring                  | Whole Numbers    | Fahrenheit                    |
| Patterns    | Subtract                |                  | Foot                          |
| Penny       | Sum                     |                  | Greater Than (>)              |
| Pictographs | Summer                  |                  | Growing Patterns              |
| Predict     | Tables                  |                  | Identify Property of Addition |
| Guarter     | Take Away               |                  | Impossible                    |
| Kectangle   | Tally Marks             |                  | Inverse Operations            |
| Same        | lemperature             |                  | Less Ihan (<)                 |
| Saturday    | Turship (40.30)         |                  | LINES<br>Lines of Commotor    |
| Separate    | Weive (to 20)           |                  | Line Segments                 |
| Change      | Weight<br>Whole Numbers |                  | Motor                         |
| Singles     | Whole Numbers           |                  | Metric                        |
| Carses      | WIIICE                  |                  | Note                          |
| Subtract    |                         |                  | Number Line                   |
| Sunday      |                         |                  | Numeral                       |
| Ten         |                         |                  | Numerator                     |
| Three       |                         |                  | Numeric Representations       |
| Thursday    |                         |                  | Obtuse Angle                  |
| Top         |                         |                  | Odd                           |

| Description | Real-Life Examples |
|-------------|--------------------|
| Word        | Sentence           |





Piggy in the Mud



Piggy in the Mud



Piggy in the Mud



Don't be Greedy!





Don't be Greedy! Don't be Greedy!



| B AND BR                                |
|---|
| See |

| e care i |     | 5.000 | ra_  |
|----------|-----|-------|------|
| M        | A P | (C)   | S. P |
|          |     |       |      |

| Side | Back | Fours | Snout |
|------|------|-------|-------|
| N    | 40   |       | THE   |
|      |      |       |       |

| Side | Back    | Fours | Snout |
|------|---------|-------|-------|
| 78   | 4%      | 67    | S.P   |
| 2.69 | operad. | 00    |       |
|      |         |       |       |

| Side | Back  | Fours | Snout |
|------|-------|-------|-------|
| M    | And a |       | S.F   |
|      |       |       |       |

| Side | Back | Fours | Snout |
|------|------|-------|-------|
| M    | A.20 |       | S. P  |
|      |      |       |       |