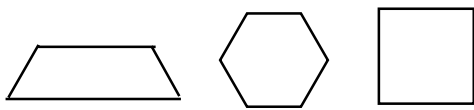




### Fun with Multiplication

If you had six of each of these polygons, how many angles would you have?



(1.03a, 1.06)



### Seeing Math

Describe your observations about the number of sides and the number of angles. Draw the next three polygons that follow this pattern.



(5.01)



### Writing About Math

Why are all halves not the same?

Give examples.

When would they be the same?

(1.05b)



### Let's Explore

William has 99 red marbles, 63 green marbles, 87 blue marbles, 69 purple marbles and 93 yellow marbles. If he share equally with two friends, how many of each color will the three boys receive?

(1.03a, 1.03b, 1.06)



### Let's Find Out

With help from your family, develop a time line of important firsts in your life.

Use intervals of six months. If you make each interval two inches long, how long will your timeline need to be?



(2.02b)





# Keeping Skills Sharp

1.  $4,000 + \underline{\quad} = 5,150$       2.  $1,000 - \underline{\quad} = 500$
3.  $2 \times \underline{\quad} = 18$
4. Bobby has \$12, two quarters and a nickel in his bank. He earned \$4 for washing a car and got a 50¢ tip. How much money does he have in his bank now?
5. Children need to drink about 3 pints of water in a day. If there are 2 cups in 1 pint, how many cups of water should children drink in a day?
6. On Saturday, Johnny played at the park for 45 minutes. On Sunday, he went back for 30 minutes. How many hours did Johnny spend at the park during the weekend?
7. Three thousands, five hundreds, fourteen tens, and twelve ones.
8. If you cut a board that is 35 inches long into five equal pieces, how long will each piece be?



# Solve this!

Three third grade classes go on a picnic. Mrs. Smith spent \$26 for refreshments. The teachers wanted to share the cost. Mrs. Smith used the calculator and said each teacher should pay \$12. Is this a reasonable answer? Why or why not?



(1.06)

# To the Teacher ..

## Fun with Multiplication:

(84 angles) Encourage students to make up their own problem using different polygon shapes.

## Seeing Math:

This growing pattern should include a hexagon, heptagon, and octagon. Discuss the names of each polygon in the whole pattern. Interested students might research the names of other polygons continuing the pattern.

## Writing About Math:

Halves are only the same amount when the whole or the number in the group is the same. The size of every fraction depends on the unit whole.

## Let's Find Out:

Students need experience with time lines. This would integrate well with social studies. Discuss types of events students might want to find out information about from their parents (ex., first tooth, word, step, day of school, ride bike, etc.)

## Mental Math

Directions to Students: Number your paper from 1 to 8. Write your answers as the questions are called out. Each question will be repeated only once.

$4 \times 5$

$6 \times 4 + 1 + 75$

Number of days in 4 weeks

$500 - 75$

What comes next ... 311, 322, 333, \_\_\_?

10 less than 3,064

Twelve minutes after 6:30

? qts in a gal.

## Keeping Skills Sharp

1,150

6 cups

500

$1\frac{1}{4}$  hrs or  
1 hr and 15  
minutes

9

3,652

\$17.05

7 inches



### Fun with Multiplication

2	4	6	8	10
12	14	16	18	20

This chart shows skip-counting by 2's. Draw a similar chart. Complete it to show skip-counting by 4's beginning with 4.

(5.01, 1.03a)



### Writing About Math

What patterns did you notice in skip-counting by 2's and 4's on the charts?

What happens if you skip-count beginning with an odd number?

(1.03a, 5.01)



### Let's Explore

Count your pulse for one minute. Use a calculator to compute the number of times your heart beats in an hour.

Does it make a difference if you run in place first?



(1.03a, 1.06)



### Seeing Math



If this pattern continues what will the 18th shape be?

the 29th shape?

the 50th shape?

How do you know?

(1.03a, 5.01, 5.02)



### Let's Find Out

Collect data for the number of hours students sleep each night. Make circle graphs (or line plots) to illustrate and compare.

Do most students sleep more than nine hours? How do you know?

(4.01)

# MULTIPLE MADNESS II



**Number of Players:** Two or two pairs

**Materials:** One gameboard per player or pair, counters or cubes of different colors, two paper clips

**Directions:** To start the game, the first player places both paper clips on any two factors. Both paper clips can be placed on the same number to allow for doubles. Player covers product of the two factors. Second player must move only one paper clip to a different factor. Second player then covers the product with counter. Players alternate moving one paper clip and covering product with their color. Winner is the first to cover four products in a row.

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

Factors

1 2 3 4 5 6 7 8 9

(1.03a)



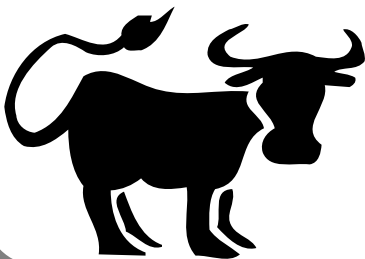
## Keeping Skills Sharp

1.  $\_\_ + 250 = 2250$
2.  $4,000 - \_\_ = 2,000$
3.  $5 \times \_\_ = 20$
4. Mrs. Jones bought a blouse that costs \$42 and a pair of slacks that costs \$53. She paid with a \$100 bill. How much change did she receive?
5. Erasers cost eight cents each. How much will five erasers cost?
6. Fifteen minutes until 6:00 is the same as  $\_\_$  minutes after 5:00.
7. 5 thousands, 16 hundreds, 12 tens, and 4 ones.
8. There are 20 crayons in a box. Four children want to share them equally. How many crayons will each child get?






## Solve this!

Cows and chickens are in the barnyard.  
There are 24 legs in the barnyard.  
How many cows? How many chickens?  
How do you know?



(1.03c)

## To the Teacher ..

Seeing Math: 18th -  29th -  50th - 

**Let's Find Out:** Explore and analyze the data in different ways.

**Let's Explore:**

Integrate with science or health. Possibly graph pulse rates for sitting and also after running.

**Mental Math**

Directions to Students: Number your paper from 1 to 8. Write your answers as the questions are called out. Each question will be repeated only once.

$3 \times 10$

$(6 + 6) - 7 \times 2$

Fingers on six hands

1 more than 6 tens +  
13 ones

What comes next ... 5494,  
5496, 5498, \_\_\_?

$750 + 42$

Five minutes before 3:30

Number of ounces in  
2 pounds

**Keeping Skills Sharp**

2,000

40¢

2,000

45 min.

4

6,724

\$5

5



### Fun with Multiplication

Use playing cards for a Multiplication War. Players put out two cards, or one card (their choice). If two cards, the product is used, if one card, it must be a factor of its opponent to win.

(1.03a)



### Seeing Math

Continue these patterns.

1, 2, 4, 7, 11, \_\_, \_\_, \_\_

1, 3, 2, 4, 3, 5, 4, \_\_, \_\_, \_\_

100, 105, 110, 115, \_\_, \_\_, \_\_

1, 3, 2, 3, 3, 3, 4, 3, 5, 3, 6, \_\_, \_\_, \_\_

30, 29, 1, 2, 28, 27, 3, 4, 26, \_\_, \_\_, \_\_

(5.01)



### Writing About Math

Write two different problem situations for

$$\underline{\quad} \times \underline{\quad} = 48.$$

(1.03a)



### Let's Explore

A basketball player can score only three-point baskets and two-point baskets.



If the player scored 37 points, what combinations of baskets could he have made?

(1.06, 1.03a)



### Let's Find Out

Using the weather data in the newspaper, compare the high and low temperatures in your town/city to the high and low in the city of your choice.

Collect these data for two weeks. Make two line plots to compare these. What statements can you make about the data?

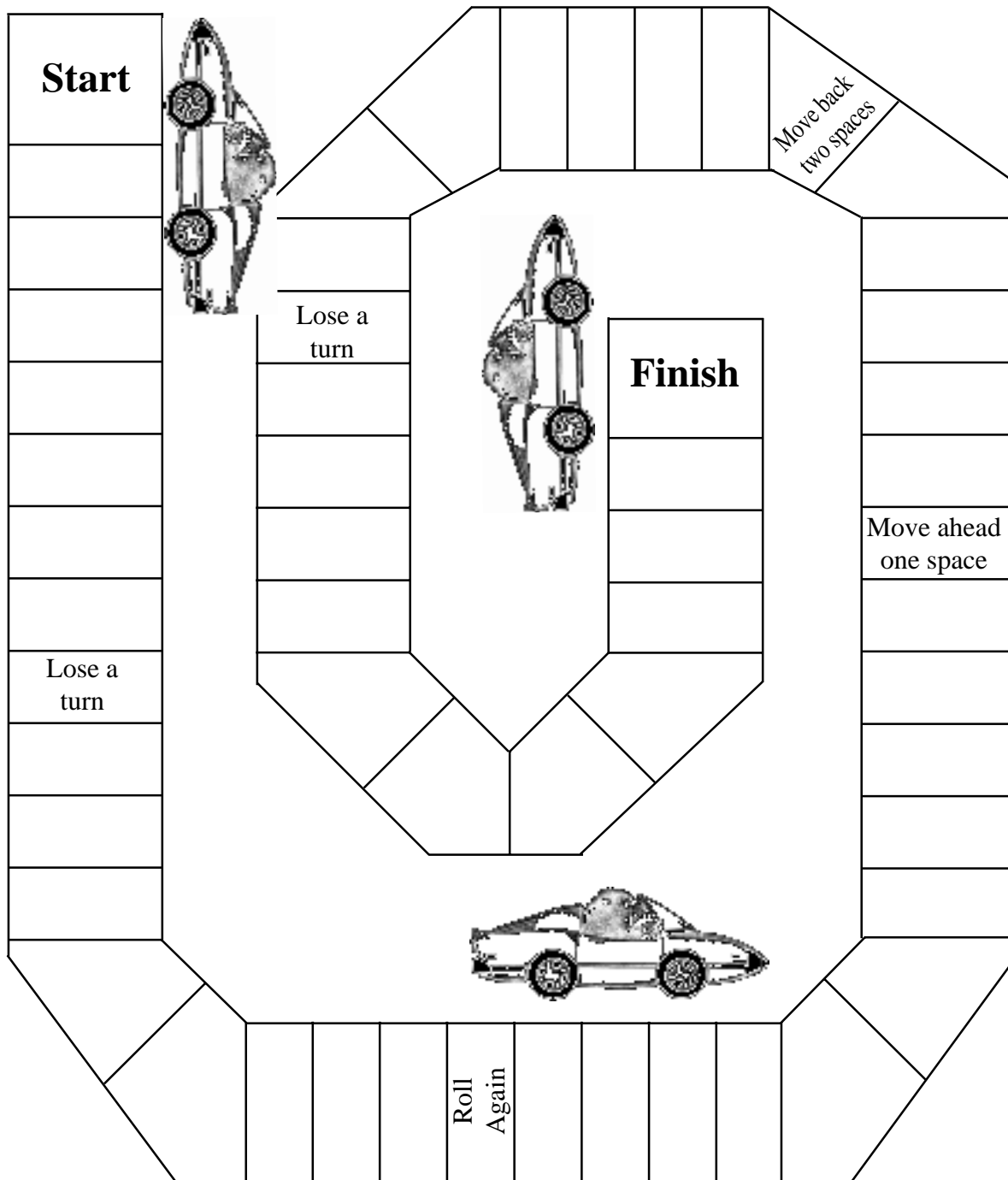
(4.01)

# STANDARD MEASURE UP

**Number of Players:** Two - four

**Materials:** Gameboard, a marker for each player, Standard Unit Cards (Blacklines Week Twenty-three), a number cube

**Directions:** Each player places markers on "start." Shuffle the game cards. The player to the left draws the top card from the deck and reads, having the players on the right fill in the blank with the correct unit of measure. If the player answers correctly, then roll the cube and move that many spaces. If the player answers incorrectly, no spaces are moved. Play continues with the next player to the right drawing and reading a card from the top of the deck.



(2.02)



# Keeping Skills Sharp

1.  $365 + 648 = \underline{\quad}$       2.  $1,207 - 1,009 =$
3.  $3 \times \underline{\quad} = 24$
4. Jake made a square out of 12 toothpicks. How many toothpicks did he use to make each side of the square?
5. Marcus is going to the store on his bicycle. He had one quarter, two dimes, one nickel and five pennies in his pocket. When he hit a bump in the road, some of the money fell out of his pocket. When he got to the store, he had only 31 cents. How much money did he lose? What coins could have fallen out of his pocket?
6. A triangular field has sides that measure 64ft, 9 yds and 50 ft . How many yards of fencing are needed to enclose it?
7. 756, 759, 762,  $\underline{\quad}$ ,  $\underline{\quad}$ ,  $\underline{\quad}$ , 774
8. The Cowboys scored four touchdowns and an extra point each time. They also scored three field goals. Each touchdown is worth six points and each field goal is worth three points. How many points did the Cowboys score in that game?



# Solve this!

Jeremy bought a parrot for \$10, sold it for \$15, bought it back for \$20, and finally sold it for \$25.

How much money did Jeremy make or lose?

(1.06)



# To the Teacher

## Seeing Math:

One strategy is to suggest that students look between the numbers. The first pattern is +1, +2, +3, +4, etc. To continue the pattern the answers are 16, 22, 27. In the second pattern, the numbers are increasing by two then subtracting one. Answers are 6, 5, 7. The third pattern increases by 5's. The fourth has 3's interspersed among the counting numbers. The last pattern counts down from thirty and up from one in turns.

## Let's Find Out:

This activity would integrate well with a weather unit. Having students collect factual information is powerful in helping them see mathematics in the real world.

## Let's Explore:

Encourage students to make a table or chart to assist them in finding solutions.

## Writing About Math:

Student responses will vary as they use different factors of 48.

## Solve This:

Answer: He made \$10

## Mental Math

Directions to Students: Number your paper from 1 to 8. Write your answers as the questions are called out. Each question will be repeated only once.

$7 \times 5$

$20 + 15 - 10 \times 4$

Cost of four ten-cent stamps

Eight more than three thousand

What comes next ... 633, 636, 639, \_\_\_?

How many feet in 6 yds?

Estimate the width of your math book.

Number of centimeters in 4 meters

## Keeping Skills Sharp

1,013

24¢ - 2 dimes & 4 pennies

198

47 yds

8

765, 768, 771

3

37 points



## Fun with Multiplication

(5.01)

APRIL

Su	1	2	3
4	5	6	7
8	9	10	
11	12	13	14
15	16	17	
18	19	20	21
22	23	24	
25	26	27	28
29	30		

What patterns do you notice in the columns and rows on the calendar?

What day is May 5th?

What day was March 29th?



## Writing About Math

How does knowing the multiplication facts for seven help you in reading a calendar?

(5.01)



## Let's Explore

Can you discover a mystery number of tiles that can be used to build a rectangle with 2 rows and also a rectangle with 4 rows?

Use drawings, pictures, or numbers to record your answer.

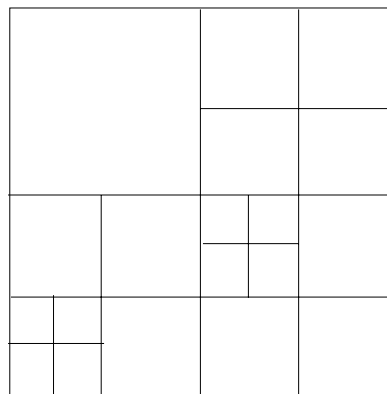


(5.02)



## Seeing Math

How many squares are in this figure?



(3.01)



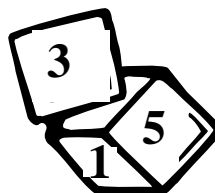
## Let's Find Out

Roll a pair of number cubes 20 times. Make a line plot for the results.

Is every sum equally likely?

Is an odd sum as likely as an even sum?

Make a line plot or pictograph for the entire class results. What do you notice?



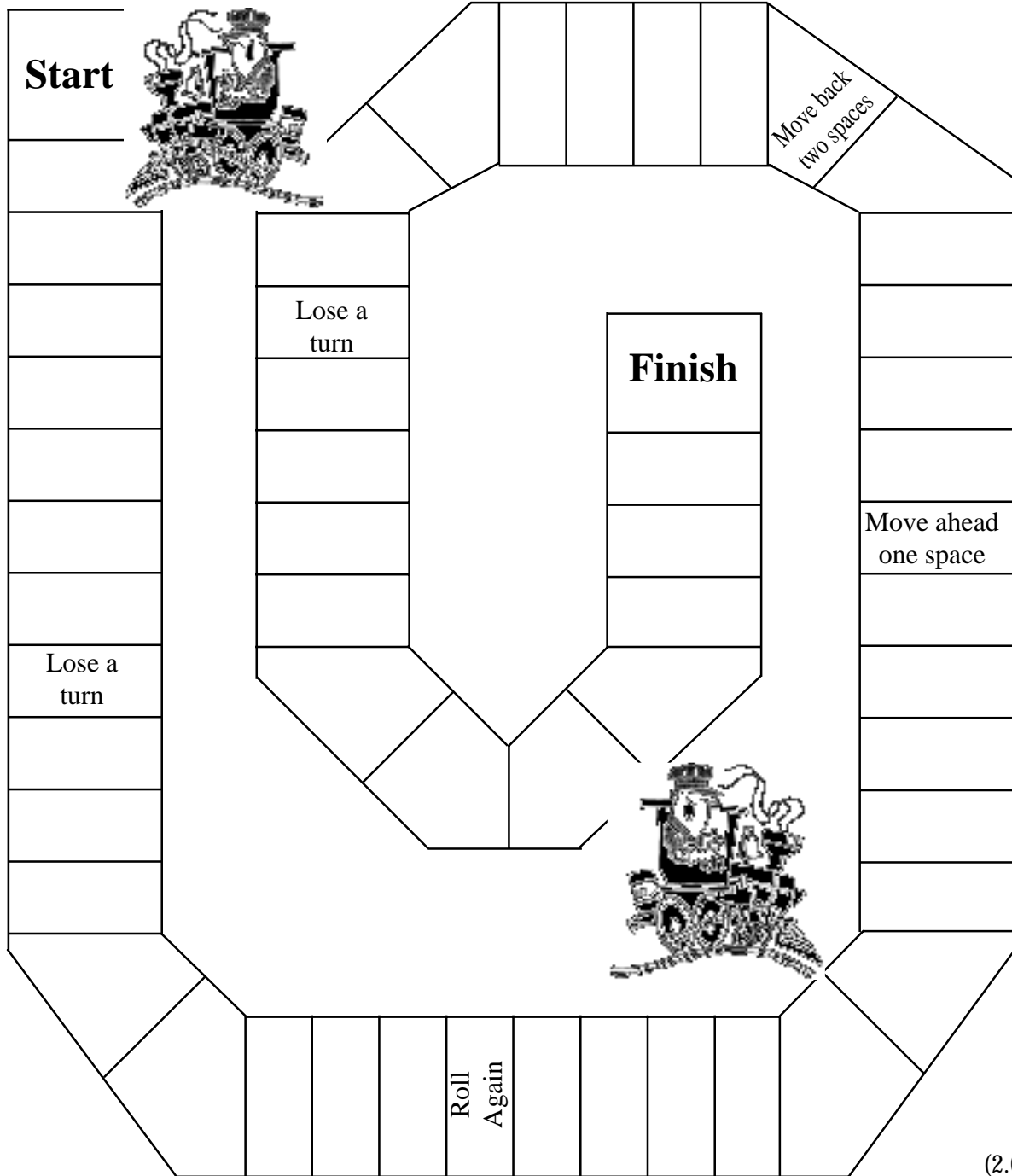
(4.01)

# METRIC MEASURE UP

**Number of Players:** Two - four

**Materials:** Gameboard, a marker for each player, Metric Unit Cards (Blacklines Week Twenty-four ), a number cube

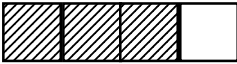
**Directions:** Each player places markers on "Start." Shuffle the game cards. The player to the left draws the top card from the deck and reads having the players on the right fill in the blank with the correct unit of measure. If the player answers correctly, then roll the number cube and move that many spaces. If player answers incorrectly, no spaces are moved. Play continues with the next player to the left drawing and reading a card from the top of the deck.



(2.02b)



# Keeping Skills Sharp

1.  $525 + 5 = 500 + \underline{\quad}$       2.  $6,000 - 500 = 5,000 + \underline{\quad}$
3.  $9 \times 4 = \underline{\quad}$
4. Mike has 1452 cards in his collection.  
Peter has 864 cards in his collection.  
How many more card does Mike have in his collection than Peter?
5. Pencils cost 9¢ each. How much would six pencils cost?
6. Forty minutes after 8:00 is the same as  $\underline{\quad}$  minutes before 9:00.
7. How much of the figure is shaded? 
8. John earned \$4 each week washing cars. How much money did he earn in eight weeks?



# Solve this!

If May 15th is a Wednesday, what day of the week was May 2nd?  
How could you determine the date of the first Sunday in June?



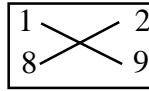
(1.06)

# To the Teacher ..

### Fun with Multiplication:

Notice patterns of skip-counting by 7's in the columns and by 1's in the rows.

There are multiple patterns to be found on a calendar.  
Two examples would be:

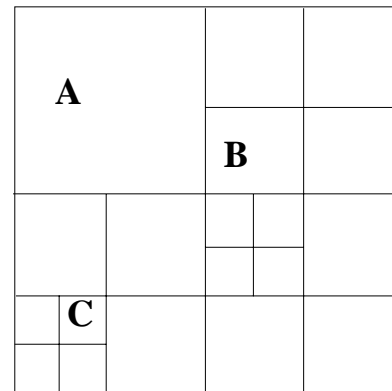


1	2	3
8	9	10
15	16	17

If a 2x2 square of four numbers is boxed off, as is shown above, the sum of the numbers on each diagonal is the same. In a 3x3 group of numbers, as shown above, the sum of the numbers on each diagonal and the sum of the numbers in the middle row are the same.

### Seeing Math:

- 1 largest square
- 8 "C" squares
- 6 "A" squares
- 12 "B" squares
- Total 27 squares



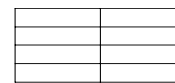
### Let's Explore:

Any number that is a multiple of 2 and 4 would be a correct solution.

(ex.) 4: 




8: 

### Solve This:

Thursday

## Mental Math

Directions to Students: Number your paper from 1 to 8. Write your answers as the questions are called out. Each question will be repeated only once.

8 x 6

50 + 15 - 3 + 10

A quarter less than \$3.00

Number of 10's in 324

What comes next...1200, 1225, 1250, \_\_\_?

249 - 50

How many inches in 2 yards?

Cost of three 33¢ stamps

## Keeping Skills Sharp

30

54¢

500

20 min.

36

three-fourths

588

\$32