



Primary Success Publications

Math Success Grade Three



By Jean Roberts

**A complete math program with great lesson plans,
lots of hands-on ideas, practice sheets, speed drills
and review features that ensure mastery**



Math Success Grade Three by Jean Roberts

First Edition - 2004

Revised - 2008

E-book revision - 2018

Images - ClipArt.com and Shutterstock images used within their regulatory guidelines.

Primary Success Publications

#305, 4965 Vista View Cres.

Nanaimo, BC Canada V9V 1S1



www.primarysuccess.ca

primarysuccess@shaw.ca

Math Success - Grade 3

Scope and Content

Number Concepts:

Place value to 1000, describing and explaining
Be able to show concrete numbers to 1000
Compare and order numbers to 1000
Skip count by 2s, 5s, 10s, 25s and 100s
Round numbers to nearest 10 and 100
Estimate amounts to 1000
Read and write number words to 1000
Place value to 100,000
Read and write numbers to 100,000
Ordinal numbers to 100
Skip count by 3s, 4s, 6s, and 9s
Even and odd numbers
Fractions - halves, thirds, fourths, fifths and eighths
Represent fractions using concrete materials



Number Operations

Model basic operations using concrete materials
Recall addition and subtraction facts to 18
Missing addends
Addition with and without re-grouping to 1000
Subtraction with and without re-grouping to 1000
Understand the concepts of multiplication and division
Learn the multiplication facts to 9×9 - explore patterns
Understand the relationship between the processes - inverse operations
Use estimation strategies
Use correct language to describe operations
Solve problems and explain and justify the method chosen for solving
Use a calculator to solve problems that are more difficult
Add and subtract money

Patterns:

Identify, create and describe patterns
Explain pattern rules
Predict and continue patterns
Understand the patterns in numbers (e.g. multiplication)

Measurement:

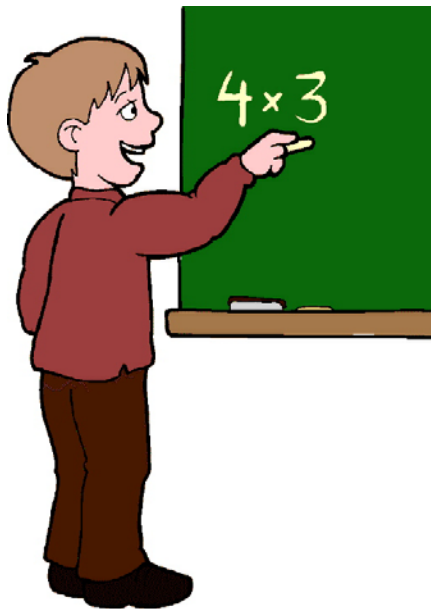
Understand the units: centimetre, metre, millimetre, litre, millilitre, gram, kilogram, degree C
Estimate the capacity of containers, linear measure and weight
Select the appropriate unit
Measure and record
Tell time and record in 12 hour notation
Estimate and measure time in seconds, minutes, hours, days, weeks, months, years
Digital and analog clocks
Read a thermometer
Understand denomination of coins and bills to \$100 and read and write amounts
Perimeter and area, estimate and measure

Shapes and Space - 2D and 3D

Name, compare, contrast and classify two dimensional shapes and three dimensional objects
Describe these by the faces, vertices, edges, sides and angles
Describe and name prisms by the shape of the base

Statistics (Data Management)

Collect and record data
Sort objects and data
Do surveys and use appropriate graphs and charts to show results
Use bar graphs and pie charts to show appropriate data
Interpreting data



Lesson Content

LESSON	CONTENT	PAGE
1	Printing numbers to 10, addition to 10, using the number line to add, the centimetre	19
2	Subtraction to 10, the metre	33
3	Combinations of 10, missing addends, brackets, patterning, numbers to 100, more and less	47
4	Addition to 18, the millimetre, counting by 3s	59
5	The basics of multiplication, count by 4s, addition to 18, reading and writing numbers to 200	73
6	Subtraction to 18 strategies, basics of multiplication, $\times 0$ and $\times 1$, read and write numbers to 300, telling time	87
7	Subtraction to 18, basics of multiplication, telling time, numbers to 400, fractions	99
8	Addition to 18, place value and addition of 2 digit numbers (no re-grouping), fractions, numbers to 500, multiplication $\times 2$ and $\times 3$	111
9	Addition to 18 for speed, adding columns, counting by 6s, numbers to 600, money	125
10	Subtraction to 18 for speed, numbers to 700, counting coins.	143
11	2 digit addition with re-grouping, numbers to 800, multiplication $\times 4$	159
12	2 digit addition with re-grouping, numbers to 900, multiplication $\times 4$ and $\times 5$, counting coins	171
13	2 digit subtraction without and with re-grouping, numbers 900 - 1000	185
14	2 digit subtraction with re-grouping, place value to 100,000	197
15	Self checking addition and subtraction, times tables $\times 6$ and $\times 7$, numbers to 999,999	209

LESSON	CONTENT	PAGE
16	3 digit addition with re-grouping, litres and millilitres, multiplication $\times 8$	223
17	3 digit addition with re-grouping, rounding numbers to the nearest 10, multiplication $\times 9$, measurement, kilometres	237
18	3 digit subtraction with re-grouping, multiplication	251
19	3 digit subtraction with re-grouping, self-checking addition and subtraction, multiplication	263
20	Area and perimeter, adding and subtracting money, division	277
21	Rounding to nearest 100, estimate answers, multiplication and division	291
22	Kilogram, gram; 2D figures, angles, sides, parallel lines, rounding and estimating answers	305
23	3D figures, angles, vertices, faces; rounding and estimating answers, temperature	319
24	Adding columns, multiplication and division, money to \$100, addition and subtraction	333
25	Multiplication 2 digits by 1 digit without re-grouping, division with remainders, adding columns, 3-D figures	345
26	Multiplication 2 digits by 1 digit with re-grouping, division with remainders, ordinals to 100	359
27	Points, lines, perpendicular lines, parallel lines and intersecting lines; multiplication and division; graphs	371
28	Review of addition and subtraction procedures, symmetry	385
29	Review of multiplication and division procedures, measurement	399
30	Review and Test	413

Weekly Vocabulary

1. add, adding, addition
2. subtract, subtracting, subtraction
3. addend, missing addend
4. sum
5. metre, centimetre, millimetre
6. words that indicate addition and subtraction in problems
7. ordinal numbers
8. place value words - ones (units), tens, hundreds, thousands
9. denominator
10. inverse operations
11. concrete and abstract
12. units of time
13. re-group
14. perimeter
15. odd and even
16. numerator
17. rounding numbers
18. two-dimensional shapes or figures:
19. quadrilaterals
20. area
21. angle, acute, obtuse, right angle
22. parallel, parallelogram
23. cube, cone, sphere, cylinder, rectangular prism, and triangular prism. Describe them by using the words: angle, edge, vertices (corners, points), face.
24. tally marks
25. factors, product
26. divisor, dividend, quotient
27. points, lines, perpendicular lines, intersecting lines
28. symmetry
29. prime number



Week 3 - Combinations of 10, missing addends, brackets, patterning, numbers to 100, more and less

Day 1 - The wonderful '10'



Oral Review - Count by 2's using odd and even numbers, count backwards from 20. Discuss the centimetre and the metre and do an estimate for each. What are the easy ways to add to 10? Show the two ways to subtract (taking away, finding the difference).

Vocabulary Words - *addend, missing addend*. The numbers we add are called addends. In the question $4 + 3 + 5 = 12$, the addends are 4, 3 and 5. Sometimes we know the total (the sum) but don't know one of the addends. This is called a 'missing addend' as in $4 + \underline{\quad} = 8$.

Daily Problem - *7, 8 and 9 year old kids were at a soccer tournament. There were 82 kids in all. 25 children were 7 years old, 36 children were 8 years old. How many children were 9 years old?*

Discuss the steps needed to solve the problem.

Lesson - We use the combinations of 10 to do addition and subtraction questions to 18. The 10 is a very useful number! It is very important to know the partners for 10 by memory. Give out 10 counters and make the different partner groupings.

Write out the partners like this:

10 + 0	0 + 10
9 + 1	1 + 9
8 + 2	2 + 8
7 + 3	3 + 7
6 + 4	4 + 6
5 + 5	

Call out one number and have the students give the partner number. First, let them look at the chart, then close their eyes and give the partner number. Put the students in pairs and they do the same for each other, taking turns at calling numbers and giving the partner number.

Discuss which equations are difficult and which are easy. How can the addition 'tricks' help us remember the partners? Work on memorizing the difficult ones.

Practice - 3.1 Write the 4 equations. Print the addition equations that make 10.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Review the partners for 10 and how they can be remembered.

Week 3 - Day 2 - Missing addends of 10, brackets

Oral Review - Count by 2's to 100 using odd and even numbers, count backwards from 20. Discuss the centimetre and the metre and do an estimate for each. What are the easy ways to add to 10? Show the two ways to subtract (taking away, finding the difference).

Vocabulary Words - *addend, missing addend*. The numbers we add are called addends. In the question $4 + 3 + 5 = 12$, the addends are 4, 3 and 5. Sometimes we know the total (the sum) but don't know one of the addends. This is called a 'missing addend' as in $4 + \underline{\quad} = 8$.

Daily Problem - *I have six coins in my pocket. What might the coins be? How much money do you think I have?*

Lesson - Discuss the equals sign. What does it mean? Talk about the balance scale, and how the same number of things must be on each side in order for it to balance. The equal sign tells us that it is balanced. Show the sign and talk about the 'not equal' sign... \neq

When we give the partners for 10, we are finding a missing addend. Show these questions:

$$3 + \underline{\quad} = 10 \quad \underline{\quad} + 7 = 10 \quad 10 = 4 + \underline{\quad} \quad 10 = \underline{\quad} + 5$$

Which numbers are the addends? How can addends be on either side of the equation? Why? How can we find missing addends? Discuss the different ways to find the answers. Remember - the equal sign must have the same number of things on each side.

Try these: $2 + 3 + \underline{\quad} = 10$ $\underline{\quad} + 2 + 7 + 0 = 10$ etc.

Students who have worked through the *Math Success Grade Two* will be familiar with brackets. We bracket parts of an equation that we want to do as a separate unit. Consider brackets as our two hands holding things together.

Write this equation on the chalkboard: $3 + 5 + 2 = 10$

Then put brackets: $(3 + 5) + 2 = 10$. Show the brackets with your two hands. This tells us to add the $3 + 5$ first, so the equation can be read $8 + 2 = 10$.

Then change the brackets to: $3 + (5 + 2) = 10$ As we do the work in the brackets first, the equation is now $3 + 7 = 10$.

Sometimes we can imagine brackets to make questions easier. For example, where would you put the brackets when we add this? $4 + 5 + 1 = \underline{\quad}$ $2 + 3 + 5 = \underline{\quad}$ Which is the easiest way to add?

Work other examples of equations for 10.

Practice - 3.2 Put brackets around 2 numbers to show the easiest way to add and then print the answers. Write all the partners for 10. Subtract.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Review the combinations that make 10. Discuss brackets.

Week 3 - Day 3 - Patterning

Oral Review - Count backwards from 20. Discuss the centimetre and the metre and do an estimate for each. What are the easy ways to add to 10? Show the two ways to subtract. Discuss brackets and how we use them. Quickly review the combinations that make 10.

Vocabulary Words - *addend, missing addend*. The numbers we add are called addends. In the question $4 + 3 + 5 = 12$, the addends are 4, 3 and 5. Sometimes we know the total (the sum) but don't know one of the addends. This is called a 'missing addend' as in $4 + \underline{\quad} = 8$.

Daily Problem - *Collect equations that make 10. These can be addition, subtraction, multiplication or division - if the students are familiar with the last two concepts.*

Lesson - The students have been making patterns since kindergarten, so they should be familiar with them. Discuss patterns and show these both in pictures and letters:

ABBABBA ABCABCABC AaBbAaBb etc.

The patterns can be fairly complicated.

Begin with three elements.... A B C and make a pattern. Then add another A B C D. These could be four colours, four different shapes, four different objects or use the four letters.

Now give each student a strip of paper. Draw a line down the middle:



Each student draws or glues a pattern on the left side of the paper. Put all the strips into a 'hat' and each student then takes one out and completes the pattern.

Spend time discussing and sharing the different patterns.

Drill the combinations of 10 as a class and in pairs if time permits.

Practice - 3.3 Finish the patterns. Use the partners of 10 to do the subtraction questions.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Briefly review patterning. Discuss tricks to add and subtract numbers to 10.

Week 3 - Day 4 - Counting to 100, more, less

Oral Review - Count backwards from 20. Discuss the centimetre and the metre and do an estimate for each. What are the easy ways to add to 10? Show the two ways to subtract (taking away, finding the difference). Discuss brackets and how we use them. Review the combinations that make 10.

Vocabulary Words - *addend, missing addend*. The numbers we add are called addends. In the question $4 + 3 + 5 = 12$, the addends are 4, 3 and 5. Sometimes we know the total (the sum) but don't know one of the addends. This is called a 'missing addend' as in $4 + \underline{\quad} = 8$.

Daily Problem - *Do an estimation jar with approximately 90 objects. Put each student's estimate in order of amount with the names. After counting them (in groups of 10, of course) discuss: How many people guessed high? Low? Why is it difficult to estimate items in a jar?*

Lesson - Give each student a handful of counters or popsicle sticks - more than 50 and less than 100. Watch as they count them. If there are students counting without grouping into 10s, interrupt the count so they have to start again! They should all be putting the counters into groups of 10. Then count the 10s and ones (units) left over and give a total. Write the total on the back of a sticky note and stick the note to the desk.

Undo the groups and spread out the counters and have everyone move to another desk - while music plays or while you clap they walk and stop when the sound stops. Count at the new place, write the total on the back of another sticky note and stick it to the desk without looking at the first. Continue to a new spot and repeat several times. Back at the home desk, see what others have put on the notes. Do they all agree?

Discuss counting to 100. Discuss the number place value of numbers less than 100 (10s, 1s) and then the hundreds place.

Discuss the signs $<$ and $>$. They are often difficult to remember. If you are comparing two numbers, the sign can be an open mouth, ready to eat the most it can..... the open mouth goes to the larger number. $54 > 49$ or 54 is more than 49.

$62 < 68$ or 62 is less than 68. Call it a hungry shark!

We read from left to right, so look at the left side of the sign - if it is the open side, that is 'more than', if the point or closed side is on the left we read 'less than'.

Practice doing these with numbers to 100. Read the number story with this sign.

You can also add the sign $=$ the numbers are equal, and \neq meaning 'not equal'.

Practice - 3.4 - Put in the $<$ or $>$ signs. Read the finished statements. Subtract from 10.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Review the $<$ and $>$ signs and the partners for 10.

Week 3 - Day 5 - The 10, missing addends, brackets, patterning, numbers to 100, more and less

Oral Review - Count backwards from 20. Discuss the centimetre and the metre and do an estimate for each. What are the easy ways to add to 10? Show the two ways to subtract. Discuss brackets and how we use them. Review the combinations that make 10. Discuss the $<$ and the $>$ signs.

Vocabulary Words - *addend, missing addend*. The numbers we add are called addends. In the question $4 + 3 + 5 = 12$, the addends are 4, 3 and 5. Sometimes we know the total (the sum) but don't know one of the addends. This is called a 'missing addend' as in $4 + \underline{\quad} = 8$.

Daily Problem - *If everyone in the class has three pencils, how many pencils are there in all?*

Speed Sheet #3 - Do Speed Sheet 3. Give the students two minutes (as described in the introduction). They circle the last question finished and then complete the sheet. Score as described in the introduction.

Review #3 - Give the students time for most to complete the sheet. Mark and score.

- 2 points for counting by 2's using odd numbers.
- 6 points for each length estimate - for the first, give full marks if perfect, 3 if one number away, 2 point if 2 numbers away. For the distance to the gym, give appropriate marks for good or poor estimates.
- 6 marks for the 'more than' and 'less than' signs.
- 30 points for the addition and subtraction - 1 point each.

Total = 50 points x2 for percent score

Discussion / Closure - Are your estimates improving? What math signs have we worked with this week? Make a list.

Notes:

3.1 All About 10

Name _____

Make 4 equations:

4 10 6

10 7 3

8 2 10

5 10 5

Make addition questions that equal 10.

3.2 Brackets

Name _____

My Number is # _____

Put in brackets to show the easiest way to add, and then complete the equation.

$6 + 2 + 2 =$

$1 + 7 + 2 =$

$1 + 4 + 3 =$

$3 + 4 + 2 =$

$5 + 2 + 4 =$

$2 + 4 + 1 =$

$3 + 2 + 4 =$

$3 + 3 + 4 =$

$3 + 5 + 1 =$

$5 + 2 + 3 =$

$4 + 2 + 3 =$

$4 + 5 + 1 =$

$2 + 5 + 2 =$

$1 + 8 + 1 =$

Print the partners for 10:

$$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$$

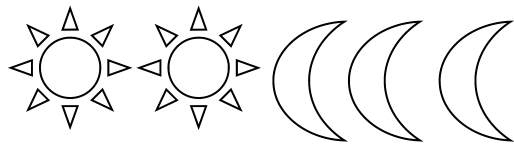
$$\begin{array}{r} 10 \\ - 9 \\ \hline \end{array}$$

3.3 Patterns

Name _____

My Number is # _____

Continue the patterns:



A B B C A B

Z z Z y Z z

O X O O O X

$$\begin{array}{r} 10 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 0 \\ \hline \end{array}$$

3.4 More than, less than

Name _____

My Number is # _____

Put in the correct sign < or >

$86 \text{ ___ } 72$

$90 \text{ ___ } 100$

$85 \text{ ___ } 74$

$45 \text{ ___ } 49$

$35 \text{ ___ } 28$

$20 \text{ ___ } 21$

$98 \text{ ___ } 43$

$74 \text{ ___ } 76$

$37 \text{ ___ } 31$

$50 \text{ ___ } 60$

$33 \text{ ___ } 79$

$86 \text{ ___ } 90$

$68 \text{ ___ } 57$

$99 \text{ ___ } 93$

$54 \text{ ___ } 73$

$75 \text{ ___ } 71$

$56 \text{ ___ } 62$

$46 \text{ ___ } 45$

$$\begin{array}{r} 10 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 0 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 10 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$$

Speed Sheet #3

Name _____
My Number is # _____

_____ correct
_____ /minute

$10 - 2 =$

$8 - 4 =$

$9 - 8 =$

$8 - 7 =$

$7 - 7 =$

$6 - 4 =$

$7 - 5 =$

$9 - 1 =$

$9 - 6 =$

$7 - 3 =$

$10 - 9 =$

$7 - 4 =$

$10 - 4 =$

$6 - 2 =$

$8 - 2 =$

$5 - 1 =$

$7 - 0 =$

$5 - 5 =$

$10 - 5 =$

$3 - 3 =$

$4 - 3 =$

$5 - 3 =$

$9 - 7 =$

$10 - 3 =$

$7 - 1 =$

$4 - 4 =$

$6 - 5 =$

$9 - 5 =$

$0 - 0 =$

$7 - 6 =$

$6 - 3 =$

$10 - 8 =$

$4 - 1 =$

$3 - 2 =$

$2 - 1 =$

$9 - 4 =$

$10 - 6 =$

$7 - 2 =$

$8 - 5 =$

$6 - 1 =$

$9 - 3 =$

$5 - 4 =$

$8 - 3 =$

$4 - 2 =$

$6 - 6 =$

$5 - 2 =$

$8 - 6 =$

$10 - 7 =$

$9 - 0 =$

$9 - 2 =$

$8 - 8 =$

Review #3

Name _____

My Number is # _____

Count on by 2's using odd numbers.

47, _____, _____, _____, _____, _____, _____, _____, _____, _____

I estimate this is _____ cm. long.

I estimate that the gym is _____ wide.

Put in the signs < or > .

16 ___ 25

66 ___ 57

98 ___ 89

77 ___ 72

49 ___ 50

86 ___ 91

9 + 1 =

8 - 4 =

7 - 2 =

3 + 2 =

4 + 3 =

3 + 6 =

5 + 5 =

9 - 7 =

5 + 5 =

9 - 6 =

2 + 3 =

10 - 2 =

4 + 6 =

6 + 4 =

7 + 3 =

2 + 8 =

10 - 3 =

8 - 5 =

9 - 8 =

5 - 4 =

2 + 7 =

8 - 6 =

10 - 6 =

7 - 0 =

10 - 7 =

2 + 8 =

7 - 4 =

3 + 7 =

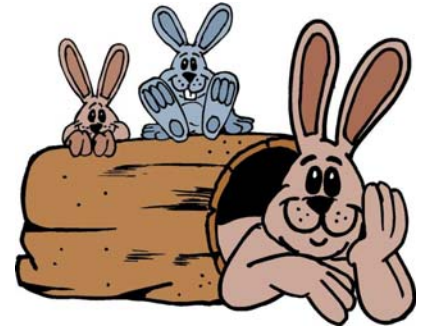
4 + 5 =

5 + 3 =

Score	Percent

Week 17 - 3 digit addition with re-grouping, rounding numbers to the nearest 10, multiplication x 9, measurement, kilometers

Day 1 - 3 digit addition



Oral Review - Count by 3s to 30, 4s to 40, and 6s to 60. Make several multiplication groupings. Discuss addition and subtraction to 18 strategies. Discuss place value to 100,000. Estimate litres and millilitres.

Vocabulary Word - Rounding numbers: rounded numbers are only approximate. Use rounding to get an answer that is close but that does not have to be exact.

Daily Problem - How many students are in each class in your school? How many students in all? How could you find out?

Lesson - Review the strategies for addition to 18 and the addition of 2 digit numbers.

Write the following questions on the chalkboard:

$$\begin{array}{r} 568 \\ + 375 \\ \hline \end{array} \qquad \begin{array}{r} 376 \\ + 543 \\ \hline \end{array} \qquad \begin{array}{r} 716 \\ + 278 \\ \hline \end{array}$$

Separate some numbers:

$$\begin{array}{r} 100 \quad 10 \\ 568 = 500 + 60 + 8 \\ +375 = 300 + 70 + 5 \\ \hline 900 + 40 + 3 = 943 \end{array}$$

Put the students in pairs and write a 3 digit addition question on the chalkboard. One student works through the problem, saying aloud what he/she is doing and discussing the meaning. Make sure they understand that when they add to make 14 (as in the example) in the tens column it really means 140.

Then the other student takes a turn. They watch and check one another.

$$\begin{array}{r} 1 \quad 1 \\ 475 \\ + 367 \\ \hline 842 \end{array}$$

Practice - 17.1 - 3 digit addition with re-grouping, multiplication to x 8.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Review 3 digit addition.

Week 17, Day 2

3 digit addition, rounding to the nearest 10

Oral Review - Count by 3s to 30, 4s to 40, and 6s to 60. Make several multiplication groupings. Discuss addition and subtraction to 18 strategies. Discuss place value to 100,000. Estimate litres and millilitres.

Vocabulary Word - Rounding numbers: rounded numbers are only approximate. Use rounding to get an answer that is close but that does not have to be exact.

Daily Problem - *Katie went to a movie. The movie began at 2:15 and ended at 4:40. How long did the movie last? How did you solve the problem? Is there more than one way to solve it?*

Lesson - Review addition of 3 digit numbers, stressing understanding of the procedures. Do a variety of questions where the re-grouping is in both the ones and tens row, just the ones or just the tens.

Rounded numbers: To round to the nearest 10, make the numbers that end in 1 through 4 into the next lower number that ends in 0. For example 54 rounded to the nearest ten would be 50. Numbers that end in a digit of 5 or more should be rounded up to the next even ten. The number 58 rounded to the nearest ten would be 60. (5 could be either ten, but is usually rounded up - 75 is usually rounded to 80.)

Practice rounding numbers to the nearest 10. If some students have problems with this, make a number line to 100. Make the multiples of 10 in red. Then give a number to round, and put the finger on the number. What ten number is closest? Sometimes we go forward and sometimes back.

What happens when we round larger numbers to the nearest ten? Round 457 to the nearest ten..... we simply consider only the last two digits (57) and round to 460. Do a number of larger numbers.

Practice - 17.2 - 3 digit addition with re-grouping, rounding to the nearest 10, multiplication.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Review 3 digit addition.

Week 17, Day 3 - patterns of 9, multiplication x 9

Oral Review - Count by 3s to 30, 4s to 40, and 6s to 60. Make several multiplication groupings. Discuss addition and subtraction to 18 strategies. Discuss place value to 100,000. Estimate litres and millilitres. Do one 3 digit addition with re-grouping question. Round numbers to the nearest 10.

Vocabulary Word - Rounding numbers: rounded numbers are only approximate. Use rounding to get an answer that is close but that does not have to be exact.

Daily Problem - Have every student take a slip of paper and write a number that is less than 1000. Cover the number with highlighter so it cannot be changed. These numbers are secret unless the students are asked. Have the students choose partners. Add the 2 numbers together. Which group has the largest number? The smallest? Change groups several times.

Lesson - Review the procedures for addition of 3 digit numbers.

Review rounding to the nearest 10, with and without a number in the hundreds place.

Give the students the pattern sheet to 100. Colour every 9th square - count by 9s. What is the pattern? Explain it. How can this help us count by 9s? Count by 9s to 90 on the back of the paper.

There is a 'trick' to the 9 times table. Write the table on the chalkboard and see if the students can tell you what the trick is.

$$\begin{aligned}0 \times 9 &= 0 \\1 \times 9 &= 9 \\2 \times 9 &= 18 \\3 \times 9 &= 27 \quad \text{etc.}\end{aligned}$$

The trick is, of course: the tens number in the answer is one less than the number you are multiplying to the 9 and the answer numbers add up to 9. So..... $7 \times 9 = ..$ the tens number in the answer is 6 and as $6 + 3 = 9$ the answer is 63. Practice the trick to answer the x 9 questions. Teach the students to look for 9s when they are doing multiplication questions.

What questions are new? Review reverse operations, and understand that the students have had every question up to 9×9 - there is only one new one. Go through all the questions and discuss whether they are easier doing them x 9 or reversing them.

Give out the flash card sheet for the 9s. Cut it apart. Put the students into pairs and practice the multiplication questions.

Practice - 17.3 - Multiply, add and round numbers.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Briefly review the 9 times table.

Week 17, Day 4

Rounding numbers to the nearest 10, measurement, kilometres

Oral Review - Count by 3s to 30, 4s to 40, and 6s to 60. Make several multiplication groupings. Discuss addition and subtraction to 18 strategies. Discuss place value to 100,000. Estimate litres and millilitres.

Vocabulary Word - Rounding numbers: rounded numbers are only approximate. Use rounding to get an answer that is close but that does not have to be exact.

Daily Problem - *Mom bought four tires for the car. Each tire cost \$95.49. How much did the tires cost?*

Lesson - Review rounding numbers to the nearest 10. Do it with 2 digit numbers (84, 89, 65, etc.) and 3 digit numbers. Round 248 to 250, and 493 to 490, etc. Then do some larger numbers, too. Round 56,328 to the nearest 10..... 56,330 , etc.

Review the metre, the centimetre and the millimetre. Have the students estimate these with their hands. Check on a ruler to see how accurate they are. Have the students estimate the length of a book, the height of a window, the width of the pencil eraser and check to see how close the estimates are. Do the students have clues to help them make estimates that are close? It could be that 1 centimetre is the width of a finger, that 10 centimetres is the length of a hand, a metre is the width of hands outstretched, etc.

What do we use when we want to measure longer distances? Discuss the kilometre. 'Kilo' means 'thousand', so a kilometre is 1000 metres. Talk about the number of km. to a nearby town, to the lake or sea, etc. If it is possible, walk 1 km. down the street or around the playground several times. How many steps in a metre? (2 for a child - talk about the length of the step.) How many steps, then, to walk 1 kilometre? Most adults can step one metre - a giant step. If you have a pedometer it will help to measure the distance, or measure your stride and count 1000 steps and have the students count with you.

Discuss kilometres and the distance. Have the students either watch the speedometer in the car as they go to the store or on other errands or have the driver tell them, and report what they learned. Look at road maps and find the kilometre distances to familiar places.

Practice - 17.4 - Estimate distances, multiply and add.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Review the units of measure.

Week 17, Day 5

3 digit addition with re-grouping, rounding numbers to the nearest 10, multiplication $\times 9$, measurement, kilometers

Oral Review - Count by 3s to 30, 4s to 40, and 6s to 60. Make several multiplication groupings. Discuss addition and subtraction to 18 strategies. Discuss place value to 100,000. Tell time and write it in digital form. What strategy do we use to count money? Review addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres and millilitres and the units of length measurement to kilometres.

Vocabulary Word - Rounding numbers: rounded numbers are only approximate. Use rounding to get a answer that is close but that does not have to be exact.

Daily Problem - *What is the perimeter of the classroom window? How can you find out? Draw the window with the measurements on it. Make different equations to show the perimeter.*

Speed Sheet #17 - Do Speed Sheet 17. Give the students two minutes (as described in the introduction). Then they circle the last question finished and then complete the sheet. Score as described in the introduction. (Put the results on the week's graph.)

Review #17 - Give the students time for most to complete the sheet. Mark and score.

- 12 points for addition - 1 point each.
- 6 points for subtraction - 1 point each.
- 14 points for the multiplication - 1/2 point each
- 8 points for rounding to the next 10 - 1 point each
- 8 points for estimation (take reasonable estimates) - 2 points each

Total = 48 points (2 free marks) $\times 2$ for percent score

Discussion / Closure - Do you remember the trick for multiplying by 9? Explain it to someone.

Notes:

17.1 Addition

Name _____

$$\begin{array}{r} 578 \\ + 69 \\ \hline \end{array}$$

$$\begin{array}{r} 455 \\ + 689 \\ \hline \end{array}$$

$$\begin{array}{r} 928 \\ + 107 \\ \hline \end{array}$$

$$\begin{array}{r} 363 \\ + 472 \\ \hline \end{array}$$

$$\begin{array}{r} 739 \\ + 131 \\ \hline \end{array}$$

$$\begin{array}{r} 529 \\ + 428 \\ \hline \end{array}$$

$$\begin{array}{r} 937 \\ + 306 \\ \hline \end{array}$$

$$\begin{array}{r} 989 \\ + 476 \\ \hline \end{array}$$

$$\begin{array}{r} 483 \\ + 366 \\ \hline \end{array}$$

$$\begin{array}{r} 682 \\ + 173 \\ \hline \end{array}$$

$$\begin{array}{r} 928 \\ + 547 \\ \hline \end{array}$$

$$\begin{array}{r} 800 \\ + 593 \\ \hline \end{array}$$

$$\begin{array}{r} 776 \\ + 838 \\ \hline \end{array}$$

$$\begin{array}{r} 637 \\ + 450 \\ \hline \end{array}$$

$$\begin{array}{r} 624 \\ + 575 \\ \hline \end{array}$$

0, 5, _____, _____, _____, _____, _____, _____, _____, _____, _____

0, 6, _____, _____, _____, _____, _____, _____, _____, _____, _____

0, 3, _____, _____, _____, _____, _____, _____, _____, _____, _____

0, 4, _____, _____, _____, _____, _____, _____, _____, _____, _____

0, 2, _____, _____, _____, _____, _____, _____, _____, _____, _____

$7 \times 7 =$

$9 \times 8 =$

$8 \times 7 =$

$3 \times 8 =$

$1 \times 7 =$

$5 \times 8 =$

$1 \times 8 =$

$7 \times 8 =$

$0 \times 8 =$

$3 \times 7 =$

$4 \times 7 =$

$9 \times 7 =$

$2 \times 7 =$

$5 \times 7 =$

$0 \times 7 =$

$8 \times 8 =$

$6 \times 8 =$

$2 \times 8 =$

$4 \times 8 =$

$6 \times 7 =$

17.2 Addition, rounding

Name _____

$$\begin{array}{r} 628 \\ +557 \\ \hline \end{array}$$

$$\begin{array}{r} 580 \\ +594 \\ \hline \end{array}$$

$$\begin{array}{r} 376 \\ +685 \\ \hline \end{array}$$

$$\begin{array}{r} 588 \\ +450 \\ \hline \end{array}$$

$$\begin{array}{r} 853 \\ +486 \\ \hline \end{array}$$

$$\begin{array}{r} 559 \\ +424 \\ \hline \end{array}$$

$$\begin{array}{r} 647 \\ +303 \\ \hline \end{array}$$

$$\begin{array}{r} 169 \\ +677 \\ \hline \end{array}$$

$$\begin{array}{r} 887 \\ +365 \\ \hline \end{array}$$

$$\begin{array}{r} 770 \\ +678 \\ \hline \end{array}$$

$$\begin{array}{r} 567 \\ +527 \\ \hline \end{array}$$

$$\begin{array}{r} 855 \\ +676 \\ \hline \end{array}$$

$$\begin{array}{r} 305 \\ +606 \\ \hline \end{array}$$

$$\begin{array}{r} 168 \\ +371 \\ \hline \end{array}$$

$$\begin{array}{r} 759 \\ +341 \\ \hline \end{array}$$

Round to the nearest 10

$42 \underline{\quad}$

$35 \underline{\quad}$

$12 \underline{\quad}$

$79 \underline{\quad}$

$23 \underline{\quad}$

$54 \underline{\quad}$

$85 \underline{\quad}$

$63 \underline{\quad}$

$47 \underline{\quad}$

$97 \underline{\quad}$

$31 \underline{\quad}$

$26 \underline{\quad}$

$16 \underline{\quad}$

$55 \underline{\quad}$

$75 \underline{\quad}$

$1 \times 8 =$

$1 \times 7 =$

$5 \times 8 =$

$7 \times 8 =$

$8 \times 7 =$

$7 \times 7 =$

$9 \times 8 =$

$3 \times 8 =$

$4 \times 8 =$

$6 \times 8 =$

$2 \times 8 =$

$6 \times 7 =$

$4 \times 7 =$

$0 \times 8 =$

$3 \times 7 =$

$9 \times 7 =$

$0 \times 7 =$

$2 \times 7 =$

$5 \times 7 =$

$8 \times 8 =$

0	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	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99
100									

$0 \times 9 =$

$1 \times 9 =$

$2 \times 9 =$

$3 \times 9 =$

$4 \times 9 =$

$5 \times 9 =$

$6 \times 9 =$

$7 \times 9 =$

$8 \times 9 =$

$9 \times 9 =$

$9 \times 0 =$

$9 \times 1 =$

$9 \times 2 =$

$9 \times 3 =$

$9 \times 4 =$

$9 \times 5 =$

$9 \times 6 =$

$9 \times 7 =$

$9 \times 8 =$

17.3 Addition, estimation

Name _____

$8 \times 9 =$

$5 \times 9 =$

$7 \times 4 =$

$7 \times 7 =$

$5 \times 6 =$

$2 \times 9 =$

$7 \times 6 =$

$1 \times 9 =$

$9 \times 6 =$

$7 \times 5 =$

$8 \times 4 =$

$8 \times 7 =$

$3 \times 9 =$

$6 \times 6 =$

$7 \times 3 =$

$9 \times 4 =$

$9 \times 9 =$

$0 \times 9 =$

$9 \times 7 =$

$4 \times 7 =$

$5 \times 7 =$

$7 \times 9 =$

$8 \times 6 =$

$6 \times 9 =$

$4 \times 9 =$

$9 \times 5 =$

$6 \times 7 =$

$9 \times 5 =$

$$\begin{array}{r} 629 \\ +128 \\ \hline \end{array}$$

$$\begin{array}{r} 437 \\ +306 \\ \hline \end{array}$$

$$\begin{array}{r} 489 \\ +476 \\ \hline \end{array}$$

$$\begin{array}{r} 483 \\ +367 \\ \hline \end{array}$$

$$\begin{array}{r} 782 \\ +173 \\ \hline \end{array}$$

$$\begin{array}{r} 528 \\ +547 \\ \hline \end{array}$$

$$\begin{array}{r} 400 \\ +593 \\ \hline \end{array}$$

$$\begin{array}{r} 476 \\ +835 \\ \hline \end{array}$$

$$\begin{array}{r} 837 \\ +450 \\ \hline \end{array}$$

$$\begin{array}{r} 623 \\ +545 \\ \hline \end{array}$$

Round to the nearest 10

52 _____

115 _____

792 _____

76 _____

343 _____

484 _____

65 _____

823 _____

747 _____

87 _____

781 _____

466 _____

46 _____

575 _____

635 _____

17.4 Measurement

Name _____

Estimate the distance to the nearest store. _____

Estimate the teacher's height. _____

Estimate the length of a spider. _____

Estimate the distance to your house. _____

Estimate the width of this paper. _____

$6 \times 6 =$

$3 \times 9 =$

$9 \times 4 =$

$7 \times 3 =$

$5 \times 9 =$

$8 \times 9 =$

$7 \times 7 =$

$7 \times 4 =$

$2 \times 9 =$

$5 \times 6 =$

$1 \times 9 =$

$7 \times 6 =$

$7 \times 5 =$

$9 \times 6 =$

$8 \times 7 =$

$8 \times 4 =$

$9 \times 5 =$

$4 \times 9 =$

$9 \times 5 =$

$6 \times 7 =$

$0 \times 9 =$

$9 \times 9 =$

$4 \times 7 =$

$9 \times 7 =$

$7 \times 9 =$

$5 \times 7 =$

$6 \times 9 =$

$8 \times 6 =$

$$\begin{array}{r} 864 \\ +206 \\ \hline \end{array}$$

$$\begin{array}{r} 354 \\ + 97 \\ \hline \end{array}$$

$$\begin{array}{r} 205 \\ +456 \\ \hline \end{array}$$

$$\begin{array}{r} 926 \\ +439 \\ \hline \end{array}$$

$$\begin{array}{r} 584 \\ +632 \\ \hline \end{array}$$

$$\begin{array}{r} 648 \\ +326 \\ \hline \end{array}$$

$$\begin{array}{r} 665 \\ +808 \\ \hline \end{array}$$

$$\begin{array}{r} 252 \\ +999 \\ \hline \end{array}$$

$$\begin{array}{r} 709 \\ +838 \\ \hline \end{array}$$

$$\begin{array}{r} 276 \\ + 69 \\ \hline \end{array}$$

$$\begin{array}{r} 848 \\ +684 \\ \hline \end{array}$$

$$\begin{array}{r} 730 \\ +547 \\ \hline \end{array}$$

Speed Sheet #17

Name _____
My Number is # _____

_____ correct
_____ /minute

$$\begin{array}{r} 3 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +8 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ +2 \\ \hline \end{array}$$

$8 + 3 = \underline{\quad}$

$4 + 9 = \underline{\quad}$

$3 + 8 = \underline{\quad}$

$8 + 6 = \underline{\quad}$

$5 + 3 = \underline{\quad}$

$6 + 3 = \underline{\quad}$

$6 + 8 = \underline{\quad}$

$7 + 6 = \underline{\quad}$

$7 + 2 = \underline{\quad}$

$7 + 5 = \underline{\quad}$

$6 + 7 = \underline{\quad}$

$8 + 7 = \underline{\quad}$

$4 + 9 = \underline{\quad}$

$5 + 4 = \underline{\quad}$

$6 + 4 = \underline{\quad}$

$4 + 6 = \underline{\quad}$

$2 + 6 = \underline{\quad}$

$8 + 5 = \underline{\quad}$

Review #17

Name _____

My Number is # _____

$$\begin{array}{r} 530 \\ +467 \\ \hline \end{array}$$

$$\begin{array}{r} 456 \\ +654 \\ \hline \end{array}$$

$$\begin{array}{r} 538 \\ +329 \\ \hline \end{array}$$

$$\begin{array}{r} 868 \\ +966 \\ \hline \end{array}$$

$$\begin{array}{r} 757 \\ +326 \\ \hline \end{array}$$

$$\begin{array}{r} 468 \\ +715 \\ \hline \end{array}$$

$$\begin{array}{r} 657 \\ +574 \\ \hline \end{array}$$

$$\begin{array}{r} 645 \\ +637 \\ \hline \end{array}$$

$$\begin{array}{r} 764 \\ +290 \\ \hline \end{array}$$

$$\begin{array}{r} 987 \\ +564 \\ \hline \end{array}$$

$$\begin{array}{r} 565 \\ +405 \\ \hline \end{array}$$

$$\begin{array}{r} 675 \\ +584 \\ \hline \end{array}$$

$$\begin{array}{r} 59 \\ -25 \\ \hline \end{array}$$

$$\begin{array}{r} 83 \\ -47 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ -25 \\ \hline \end{array}$$

$$\begin{array}{r} 49 \\ -48 \\ \hline \end{array}$$

$$\begin{array}{r} 46 \\ -69 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ -15 \\ \hline \end{array}$$

$6 \times 6 =$

$3 \times 9 =$

$9 \times 4 =$

$7 \times 3 =$

$5 \times 9 =$

$8 \times 9 =$

$7 \times 7 =$

$7 \times 4 =$

$2 \times 9 =$

$5 \times 6 =$

$1 \times 9 =$

$7 \times 6 =$

$7 \times 5 =$

$9 \times 6 =$

$8 \times 7 =$

$8 \times 4 =$

$9 \times 5 =$

$4 \times 9 =$

$9 \times 5 =$

$6 \times 7 =$

$0 \times 9 =$

$9 \times 9 =$

$4 \times 7 =$

$9 \times 7 =$

$7 \times 9 =$

$5 \times 7 =$

$6 \times 9 =$

$8 \times 6 =$

Round to the nearest 10:

47 _____

178 _____

645 _____

45,342 _____

85 _____

863 _____

1,237 _____

123,849 _____

Estimate the distance to the library. _____

Estimate the length of your pencil. _____

Estimate the distance to the nearest mall. _____

Estimate the perimeter of this paper. _____

Score	Percent

Week 24 - Adding columns, multiplication and division, money to \$100, addition and subtraction

Day 1 - Adding columns

Oral Review - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.



Vocabulary Words - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: I II III IIII $\overline{\text{||||}}$ Each mark represents one item being collected.

Daily Problem - Mom was making a patio in the garden. The stones she used were 30 cm. square. She put 6 stones in a row and made 8 rows. How many stones did she use? Can you find out how big the patio was when she was finished?

Lesson - Print a column of 2 digit numbers on the chalkboard. Have the ones column add to over 20. This may be the first experience of addition with re-grouping and having 2 or more tens.

35
47
29
33

There are several skills in adding a column. First, we could simple add downwards.... $5 + 7 + 9 + 3$, saying 5, 12, 21, 24 , but that can be difficult. Discuss this with the students. Can they think of an easier way?

If they can find a 10, that will make it easier. With this question, they could add $9 + 5$, and then the $(7 + 3)$ 10. They could say $14 + 10 = 24$. They could also add $5 + 7 = 12$ and $9 + 3 = 12$ $12 + 12 = 24$.

Then the 4 goes in the 'ones' column and there are 2 tens to take to the tens column.

Try a number of different questions, discussing what would be the easiest way to add. Earlier this year we talked about adding in 15s: $9 + 6$ and $7 + 8$ Two 15s make 30. This can help to add a long difficult question.

Then add a series of 3 digit numbers, discussing the easiest way to add, and the meaning of what is happening.

Have the students make up questions for each other and solve them.

If time permits, check some answers with a calculator.

Practice - 24.1 - Do the column addition

Discussion / Closure - Answer the daily problem now or at the end of the school day. Talk about tricks that can help when adding columns of numbers.

Week 24 - Day 2 - Multiplication and division

Oral Review - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.

Vocabulary Words - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: I II III IIII $\overline{\text{IIII}}$ Each mark represents one item being collected.

Daily Problem - *Did you know there are other ways to write numbers? Have you heard about Roman Numerals? This is a very old way of showing numbers. There are symbols for 1 (I), 5 (V), 10 (X), 50 (L), 100 (C). We can only have 3 of one symbol, so what happens when you come to 4? Learn how to count this way. Where do we see these numbers?*

Lesson - Discuss the 'tricks' - multiplying by 0 and 1, counting by 3, 4 and 6, multiplying by 9, the $\times 5$, the doubles and the reverse of each. Discuss the ways to remember the answers. What questions are really difficult to remember? Can you think of any 'trick' to remember these answers? Do you remember the trick to do 7×8 ? Discuss the principles of division. Discuss the sign \div , and then review the other way of writing division questions.

$$\begin{array}{r} 9 \\ \hline 5 \overline{) 45} \end{array}$$

Write a few division questions and discuss where the answer goes (over the 5 in the 45 - the ones column). Read the question as "How many 5s in 45?"

Write out any questions that are difficult and write the 4 operations of multiplication and division (inverse operations) for each.

Call out large numbers that are answers to multiplication partners and have the students print the questions. For example, call out '35', and the students print 5×7 and 7×5 . If you call out a number such as 24, there are several sets of questions that can be written.

Have the students use the multiplication flash cards and test one another.

Practice - 24.2 - Do the multiplication and division questions. When doing the 'long division' format, make sure the answers are in the correct column. Answer the easiest questions first. Write the more difficult ones on the back of the sheet to study later.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Review multiplication and division.

Week 24 - Day 3 - Money to \$100

Oral Review - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.

Vocabulary Words - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: I II III IIII ~~IIII~~ Each mark represents one item being collected.

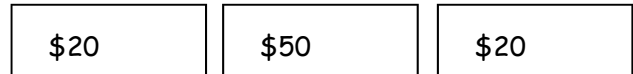
Daily Problem - *People who work in stores must know how to give change back to customers. For example, if you were buying a toy that cost \$3.85 and handed the clerk a five dollar bill, how much money should you get back? Can you make up more questions?*

Lesson - Review the coins, the coin names and the value.

We used to have a \$1.00 and a \$2.00 bill, but now we have the loonie and toonie replacing them. What are the values of the paper money you have seen? \$5 (blue), \$10 (purple), \$20 (green), \$50 (pink) and \$100 (brown).

If you had \$65.00, how could it look? It could be $50 + 10 + 5$, or $20 + 20 + 20 + 5$, and other ways, too. Do a number of these questions.

We count the bills the same way we count coins - the largest first and then in decreasing denomination. Draw some 'money' on the board:



and count it, from largest denomination to smallest. Add \$1 and \$2 coins to this, too.

Finally, talk about adding bills plus the smaller coins, and writing the totals. Use monopoly money, if you wish, plus the coins used before.

Pretend to be buying higher priced things and having the students count out the money needed to purchase it. Are there different ways to come to the same amount? Share these.

Practice - 24.3 - Add the amounts of money putting a total. Then read the problems and draw the change.

Discussion / Closure Answer the daily problem now or at the end of the school day. Briefly review counting money.

Week 24 - Day 4 - Addition and subtraction review

Oral Review - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.

Vocabulary Words - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: I II III IIII ~~IIII~~ Each mark represents one item being collected.

Daily Problem - *You go to the books store and choose a book for \$4.60, another for \$10.25 and another for \$12.80. How much will the three books cost? You have a \$50 bill. How much change will you get?*

Lesson - Review 3 digit addition and subtraction procedures.

Put the students in pairs and do one question in addition and then one in subtraction. The students take turns doing the questions, discussing the procedures as they work, telling what they are doing and why they are doing it. The other student checks the question on a calculator, or by doing the inverse operation.

Practice - 24.4 - Do the addition and subtraction page.

Discussion / Closure - Answer the daily problem now or at the end of the school day. Review the addition and subtraction procedures.

Week 24 - Day 5 - adding columns, multiplication and division, money to \$100, addition and subtraction

Oral Review - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.

Vocabulary Words - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: I II III IIII $\overline{\text{IIII}}$ Each mark represents one item being collected.

Daily Problem - *Megan went to the store to buy groceries for Mom. Mom gave her a \$20 bill to pay for the groceries. She bought milk for \$2.15, bread for \$1.95, cookies for \$3.60 and meat for \$9.25. How much did the groceries cost? Will she get some change back? How could the change look?*

Speed Sheet #24 - Do Speed Sheet 24. Give the students two minutes (as described in the introduction). Then they circle the last question finished and then complete the sheet. Score as described in the introduction. (Put the results on the multiplication graph.)

Review #24 - Give the students time for most to complete the sheet. Mark and score.

- 12 points for subtraction - 2 points each.
- 12 points for addition - 2 points each.
- 10 points for the division - 1/2 point each
- 12 points for rounding - 1 point for each answer
- 4 points for the area and perimeter - 2 marks each.

Total = 50 points x2 for percent score

Discussion / Closure - Would you like to know more about Roman Numerals? Do some tricky numbers!

Notes:

24.1 Column addition

Name _____

74	46	67	56	49	65
25	43	78	63	56	35
35	54	76	75	44	79
19	57	39	67	36	35
<u>+76</u>	<u>+35</u>	<u>+25</u>	<u>+24</u>	<u>+71</u>	<u>+67</u>

465	252	709	276	848	730
374	655	291	48	827	986
231	148	412	999	<u>+684</u>	<u>+547</u>
<u>+808</u>	<u>+999</u>	<u>+838</u>	<u>+ 62</u>		

$6 \times 6 =$

$3 \times 9 =$

$9 \times 4 =$

$7 \times 3 =$

$5 \times 9 =$

$8 \times 9 =$

$7 \times 7 =$

$7 \times 4 =$

$2 \times 9 =$

$5 \times 6 =$

$1 \times 9 =$

$7 \times 6 =$

$7 \times 5 =$

$9 \times 6 =$

$8 \times 7 =$

$8 \times 4 =$

$9 \times 5 =$

$4 \times 9 =$

$9 \times 5 =$

$6 \times 7 =$

$0 \times 9 =$

$9 \times 9 =$

$4 \times 7 =$

$9 \times 7 =$

$7 \times 9 =$

$5 \times 7 =$

$6 \times 9 =$

$8 \times 6 =$

Draw a parallelogram with 2 acute angles.

Draw a line and another line perpendicular to it.

24.2 Multiplication and division

Name _____

$5 \times 8 =$

$9 \times 4 =$

$6 \times 7 =$

$3 \times 6 =$

$6 \times 3 =$

$5 \times 4 =$

$5 \times 6 =$

$8 \times 9 =$

$4 \times 5 =$

$6 \times 9 =$

$3 \times 4 =$

$7 \times 5 =$

$5 \times 3 =$

$9 \times 5 =$

$4 \times 8 =$

$9 \times 6 =$

$9 \times 8 =$

$7 \times 6 =$

$3 \times 5 =$

$8 \times 8 =$

$7 \times 7 =$

$9 \times 3 =$

$9 \times 9 =$

$7 \times 4 =$

$4 \times 6 =$

$8 \times 4 =$

$5 \times 7 =$

$3 \times 7 =$

$8 \times 3 =$

$7 \times 8 =$

$9 \times 2 =$

$4 \times 9 =$

$7 \times 9 =$

$6 \times 5 =$

$3 \times 8 =$

$7 \times 3 =$

$6 \times 4 =$

$4 \times 3 =$

$8 \times 5 =$

$8 \times 7 =$

$4 \times 7 =$

$9 \times 7 =$

$5 \times 9 =$

$5 \times 5 =$

$3 \times 9 =$

$6 \times 6 =$

$8 \times 6 =$

$6 \times 8 =$

$$6 \overline{) 48}$$

$$5 \overline{) 40}$$

$$8 \overline{) 72}$$

$$8 \overline{) 64}$$

$$9 \overline{) 81}$$

$30 \div 5 =$

$18 \div 6 =$

$81 \div 9 =$

$20 \div 4 =$

$16 \div 2 =$

$12 \div 6 =$

$8 \div 2 =$

$42 \div 7 =$

$45 \div 5 =$

$49 \div 7 =$

$16 \div 8 =$

$25 \div 5 =$

$48 \div 8 =$

$16 \div 4 =$

$24 \div 3 =$

$12 \div 2 =$

$9 \div 3 =$

$15 \div 3 =$

$25 \div 5 =$

$4 \div 2 =$

$12 \div 3 =$

$35 \div 5 =$

$24 \div 8 =$

$24 \div 3 =$

$10 \div 2 =$

$30 \div 5 =$

$18 \div 3 =$

$60 \div 10 =$

$24 \div 6 =$

$12 \div 4 =$

$16 \div 4 =$

$36 \div 6 =$

24.3 Money

Name _____

How much money?

<div style="display: flex; justify-content: space-around;"><div style="border: 1px solid black; padding: 5px; width: 100px; text-align: center;">\$20</div><div style="border: 1px solid black; padding: 5px; width: 100px; text-align: center;">\$20</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">\$2</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">\$2</div></div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">\$1</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">25¢</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">25¢</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">10¢</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">10¢</div></div> <p style="text-align: right; margin-top: 10px;">_____</p>	<div style="display: flex; justify-content: space-around;"><div style="border: 1px solid black; padding: 5px; width: 100px; text-align: center;">\$5</div><div style="border: 1px solid black; padding: 5px; width: 100px; text-align: center;">\$10</div><div style="border: 1px solid black; padding: 5px; width: 100px; text-align: center;">\$50</div></div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">\$1</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">10¢</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">25¢</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">10¢</div></div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">\$2</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">\$1</div><div style="border: 1px solid black; border-radius: 50%; padding: 5px; width: 40px; text-align: center;">5¢</div></div> <p style="text-align: right; margin-top: 10px;">_____</p>
---	---

You have a toonie. You buy an ice cream cone for \$1.60. Draw the change.

You buy a book for \$3.25. Draw the money you need to pay.

You buy groceries for \$12.49. Draw the money you need.

You have \$50. You buy clothes for \$32.20. Draw the money you have left.

24.4 Addition and subtraction

Name _____

$$\begin{array}{r} 774 \\ +206 \\ \hline \end{array}$$

$$\begin{array}{r} 689 \\ +356 \\ \hline \end{array}$$

$$\begin{array}{r} 545 \\ +357 \\ \hline \end{array}$$

$$\begin{array}{r} 468 \\ +673 \\ \hline \end{array}$$

$$\begin{array}{r} 192 \\ +439 \\ \hline \end{array}$$

$$\begin{array}{r} 115 \\ +435 \\ \hline \end{array}$$

$$\begin{array}{r} 426 \\ +858 \\ \hline \end{array}$$

$$\begin{array}{r} 737 \\ +593 \\ \hline \end{array}$$

$$\begin{array}{r} 272 \\ +497 \\ \hline \end{array}$$

$$\begin{array}{r} 408 \\ +874 \\ \hline \end{array}$$

$$\begin{array}{r} 247 \\ +749 \\ \hline \end{array}$$

$$\begin{array}{r} 379 \\ +183 \\ \hline \end{array}$$

$$\begin{array}{r} 168 \\ +434 \\ \hline \end{array}$$

$$\begin{array}{r} 337 \\ +758 \\ \hline \end{array}$$

$$\begin{array}{r} 186 \\ +568 \\ \hline \end{array}$$

$$\begin{array}{r} 167 \\ +419 \\ \hline \end{array}$$

$$\begin{array}{r} 805 \\ +368 \\ \hline \end{array}$$

$$\begin{array}{r} 599 \\ +123 \\ \hline \end{array}$$

$$\begin{array}{r} 960 \\ -473 \\ \hline \end{array}$$

$$\begin{array}{r} 586 \\ -169 \\ \hline \end{array}$$

$$\begin{array}{r} 754 \\ -597 \\ \hline \end{array}$$

$$\begin{array}{r} 662 \\ -138 \\ \hline \end{array}$$

$$\begin{array}{r} 664 \\ -327 \\ \hline \end{array}$$

$$\begin{array}{r} 783 \\ -209 \\ \hline \end{array}$$

$$\begin{array}{r} 302 \\ -137 \\ \hline \end{array}$$

$$\begin{array}{r} 763 \\ -458 \\ \hline \end{array}$$

$$\begin{array}{r} 430 \\ -259 \\ \hline \end{array}$$

$$\begin{array}{r} 284 \\ -147 \\ \hline \end{array}$$

$$\begin{array}{r} 504 \\ -175 \\ \hline \end{array}$$

$$\begin{array}{r} 535 \\ -267 \\ \hline \end{array}$$

$$\begin{array}{r} 741 \\ -633 \\ \hline \end{array}$$

$$\begin{array}{r} 902 \\ -448 \\ \hline \end{array}$$

$$\begin{array}{r} 768 \\ -584 \\ \hline \end{array}$$

$$\begin{array}{r} 430 \\ -255 \\ \hline \end{array}$$

$$\begin{array}{r} 357 \\ -179 \\ \hline \end{array}$$

$$\begin{array}{r} 867 \\ -348 \\ \hline \end{array}$$

Speed Sheet #24

Name _____
My Number is # _____

_____ correct
_____ /minute

$4 \times 4 =$

$9 \times 2 =$

$6 \times 9 =$

$9 \times 7 =$

$6 \times 3 =$

$4 \times 8 =$

$3 \times 4 =$

$9 \times 9 =$

$6 \times 0 =$

$3 \times 4 =$

$8 \times 2 =$

$5 \times 7 =$

$2 \times 3 =$

$0 \times 8 =$

$3 \times 3 =$

$3 \times 6 =$

$1 \times 6 =$

$6 \times 6 =$

$2 \times 7 =$

$6 \times 4 =$

$8 \times 4 =$

$6 \times 7 =$

$9 \times 3 =$

$4 \times 9 =$

$5 \times 9 =$

$8 \times 8 =$

$3 \times 3 =$

$5 \times 2 =$

$5 \times 0 =$

$9 \times 6 =$

$8 \times 7 =$

$5 \times 0 =$

$9 \times 8 =$

$8 \times 5 =$

$9 \times 4 =$

$6 \times 2 =$

$7 \times 9 =$

$5 \times 3 =$

$8 \times 6 =$

$6 \times 5 =$

$2 \times 3 =$

$2 \times 9 =$

$3 \times 2 =$

$0 \times 7 =$

$2 \times 2 =$

$4 \times 5 =$

$7 \times 8 =$

$5 \times 4 =$

$1 \times 8 =$

$5 \times 1 =$

$4 \times 6 =$

$2 \times 8 =$

$2 \times 5 =$

$3 \times 8 =$

$5 \times 6 =$

$7 \times 4 =$

$1 \times 7 =$

$7 \times 5 =$

$7 \times 4 =$

$4 \times 1 =$

$7 \times 6 =$

$6 \times 1 =$

$4 \times 7 =$

$9 \times 5 =$

$8 \times 9 =$

$3 \times 5 =$

$6 \times 4 =$

$7 \times 3 =$

$8 \times 4 =$

$4 \times 4 =$

$8 \times 3 =$

$5 \times 8 =$

$7 \times 2 =$

$6 \times 8 =$

$9 \times 4 =$

$4 \times 3 =$

$2 \times 4 =$

$3 \times 1 =$

$3 \times 7 =$

$7 \times 7 =$

$5 \times 4 =$

$2 \times 6 =$

$3 \times 9 =$

$4 \times 2 =$

Review #24

Name _____

My Number is # _____

$$\begin{array}{r} 366 \\ -149 \\ \hline \end{array}$$

$$\begin{array}{r} 844 \\ -557 \\ \hline \end{array}$$

$$\begin{array}{r} 650 \\ -267 \\ \hline \end{array}$$

$$\begin{array}{r} 644 \\ -367 \\ \hline \end{array}$$

$$\begin{array}{r} \$8.83 \\ -\$4.79 \\ \hline \end{array}$$

$$\begin{array}{r} \$4.61 \\ -\$4.36 \\ \hline \end{array}$$

$$\begin{array}{r} 687 \\ 344 \\ +355 \\ \hline \end{array}$$

$$\begin{array}{r} 645 \\ 883 \\ +357 \\ \hline \end{array}$$

$$\begin{array}{r} 774 \\ 475 \\ +203 \\ \hline \end{array}$$

$$\begin{array}{r} 492 \\ 999 \\ +439 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.15 \\ \$6.89 \\ +\$4.33 \\ \hline \end{array}$$

$$\begin{array}{r} \$4.68 \\ \$2.67 \\ +\$6.72 \\ \hline \end{array}$$

$24 \div 6 =$

$28 \div 7 =$

$32 \div 4 =$

$81 \div 9 =$

$45 \div 5 =$

$12 \div 3 =$

$30 \div 5 =$

$36 \div 6 =$

$24 \div 8 =$

$30 \div 6 =$

$18 \div 6 =$

$28 \div 4 =$

$16 \div 4 =$

$16 \div 2 =$

$42 \div 7 =$

$10 \div 2 =$

$20 \div 4 =$

$48 \div 8 =$

$12 \div 2 =$

$27 \div 3 =$

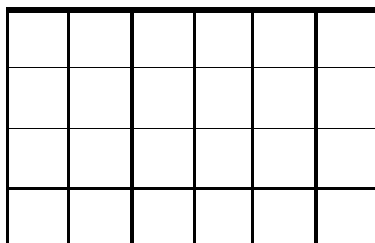
Round to the nearest hundred to give an estimate, add or subtract, then find the difference.

$481 + 134 = \underline{\quad} + \underline{\quad} = \underline{\quad\quad\quad}$ Real answer $\underline{\quad\quad\quad}$ difference $\underline{\quad\quad\quad}$

$725 + 388 = \underline{\quad} + \underline{\quad} = \underline{\quad\quad\quad}$ $\underline{\quad\quad\quad}$ $\underline{\quad\quad\quad}$

$249 - 108 = \underline{\quad} - \underline{\quad} = \underline{\quad\quad\quad}$ $\underline{\quad\quad\quad}$ $\underline{\quad\quad\quad}$

$697 - 587 = \underline{\quad} - \underline{\quad} = \underline{\quad\quad\quad}$ $\underline{\quad\quad\quad}$ $\underline{\quad\quad\quad}$



344

Write equations to show the perimeter and the area.

The perimeter: $\underline{\quad\quad\quad} = \underline{\quad\quad\quad}$

The area: $\underline{\quad\quad\quad} = \underline{\quad\quad\quad}$

Score	Percent