

11. 634
10. 369
9. 279
8. 18
7. 785
6. 133
5. 215
4. 1104
3. 1091
2. 1155
1. 932
18. $3412 - 2945 = 467$
and quite a bit less than 494,964,
is thus a bit more than 371,223
494,964. The number of children
 $= 123,741 + 123,741 + 123,741 =$
 $123,741 = 371,223$ and $123,741 +$
 $17, 123,741 + 123,741 +$
305 feet
16. $200 + 150 + 32 + 17 + 16 =$
15. 416
14. 389
13. 1269
12. 1122

BASIC MATH

The Complete Course Lesson One

Addition & Subtraction KA8401

Teaching Guide & Worksheet

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HOW TO USE THE VIDEO AND TEACHING GUIDE

1. The "STOP TO THINK" signal means pause to think.
2. The "STOP TO WORK" signal means work the problem(s).
3. Rewind the tape and watch the lesson again if the concept is not clear.
4. Use "Learning Strategies" section of the Teachers Guide as memory aids and topics for classroom discussion.
5. Students should complete the exercises on the worksheet to confirm their understanding of this lesson.

Instructors may duplicate the worksheets as needed

LEARNING STRATEGIES

UNDERSTANDING MATHEMATICS

- A. It is important to know why things work as they do; there is a reason for every rule
1. Understand why "it" works
 2. Know when "it" will be useful in the real world
- B. There is a similarity between whole numbers, fractions, and decimals; understanding this makes much of algebra easier to understand
1. Adding is always counting
 2. Subtracting is always the opposite of adding
 3. Multiplying is always repeated addition
 4. Dividing is always the opposite of multiplying
-

LEARNING ABOUT NUMBERS

- A. What is a number?
- B. How and why were numbers created?
1. To keep counts of people and possessions
 2. Fingers represented amounts
 3. Scratches on walls or rocks to represent numbers
 4. Grunts or other sounds to communicate amounts
 5. Abstract symbols replaced fingers and scratch marks
- C. Why do we have a system using ten digits?
1. We have ten fingers (digits)
 2. What if our ancestors had four fingers on each hand?
- D. Understanding the importance of place value
1. Defines what is being counted
 2. In fractions and polynomials, identifying the place value makes computation the same as for whole numbers
- E. The importance of one and zero
1. Numeration starts with one
 2. Zero is needed to define negative numbers and to write numbers
-

UNDERSTANDING ADDITION

- A. What is adding? Adding is counting, and you can count only things that are alike (apples and apples, cows and cows, etc.)
- B. Finding the sum for an addition problem
1. Line up place values
 2. What happens if place values are not lined up?
- C. The use of place value in addition—carrying, renaming, or regrouping
- D. Adding with a calculator
- E. The importance of estimation skills. Is the answer on the calculator reasonable?
-

UNDERSTANDING SUBTRACTION

- A. What is subtracting? Subtracting is counting backward
- B. Three views of subtraction
1. "Take away"
 2. Find the difference
 3. The missing addend
- C. A graphic representation of subtraction
- D. Finding the difference between two numbers
- E. The use of borrowing in subtraction
- F. Using a calculator to subtract
- G. Estimating answers. Is the answer on the calculator reasonable?

WORKSHEET STRATEGIES

Work each problem by hand and check on a calculator.

1. $876 + 47 + 9 =$
2. $348 + 576 + 231 =$
3. $1732 - 641 =$
4. $4001 - 2897 =$
5. $876 + \underline{\hspace{1cm}} = 1091$
6. $379 + \underline{\hspace{1cm}} = 512$
7. $1380 + \underline{\hspace{1cm}} = 2165$
8. $97 + \underline{\hspace{1cm}} + 85 = 200$
9. $361 - \underline{\hspace{1cm}} = 82$
10. $\underline{\hspace{1cm}} - 157 = 212$
11. $701 - \underline{\hspace{1cm}} = 67$
12. $2001 - \underline{\hspace{1cm}} = 879$
13. $\underline{\hspace{1cm}} - 561 = 708$
14. $301 + \underline{\hspace{1cm}} - 287 = 403$
15. $97 + 538 - \underline{\hspace{1cm}} = 219$

16. A golfer takes five shots to play the 17th hole on a course. His first shot is 200 feet. The second shot covers 150 feet. A 32-foot shot puts him on the green. He uses two putts, the first is 17 feet and the second is 6 feet, to complete the hole. What is the total distance traveled by his shots?

17. It is estimated that the average number of children in a family in a particular country is 3.2. If there are 123,741 families, estimate the number of children who live in this nation.

18. In 1996 the National Baseball League of Slovenia hit a total of 3412 homeruns. The National Baseball League of Fonseca hit 2945 homeruns. How many more homeruns were hit in Slovenia?