

Mathematics

Help Pages

## Help Pages

## Vocabulary

## Math Terms

addition - combining numbers. The sign " + " means add. The answer to an addition problem is called the sum.

Example: When 5 and 2 are combined, the sum is $7.5+2=7$.
subtraction - taking one number away from another. The sign "-" means subtract. The answer to a subtraction problem is called the difference.

Example: When 1 is taken away from 5 , the difference is $4.5-1=4$.

## Geometry: Equal Parts

Half of this circle is shaded. 1 of 2 equal parts is shaded.
A fourth, or a quarter, of this circle is shaded.
1 of 4 equal parts is shaded.


## Geometry

| Two-Dimensional Shapes (flat) |  |  | Three-Dimensional Shapes (solid) |  |
| :---: | :---: | :---: | :---: | :---: |
| 3 sides <br> triangle |  | $\begin{aligned} & \text { es } \\ & \square \\ & \hline \text { gle } \end{aligned}$ |  |  |
| 4 sides <br> square |  |  |  <br> cube | rectangluar prism |
| 6 sides <br> hexagon |  |  | cylinder |  |
| Measurement: Time Relationships |  |  |  |  |
| 30 minutes $=1$ half hour |  | 60 minutes $=1$ hour |  | 7 days $=1$ week |

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## Time

A clock has two hands. The long hand is the minute hand.
The short hand is the hour hand.

On this clock, the hour hand is pointing to the 7. The minute hand is pointing to the 12 . The time is 7:00, or seven o'clock.


The time on this clock is nine o'clock, or 9:00.

On this clock the hour hand is past the 2 , but not yet to the 3 .
The minute hand is pointing to the 6 .
The time is 2:30, or two-thirty.


The time on this clock is seven-thirty, or 7:30.

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## Money

There are 4 coins shown here.

A penny is worth $1 \phi$.


A nickel is worth 5 ¢.

A dime is worth 10 .


A quarter is worth 25 .

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## Place Value

| Whole Numbers |  |
| :---: | :---: |
| tens <br> The number above is read: eighty-five. | A fact family is a set of related facts using addition, subtraction, and the same three numbers. <br> Example: <br> Write a fact family using 3,4 , and 7. $\begin{array}{ll} 3+4=7 & 7-3=4 \\ 4+3=7 & 7-4=3 \end{array}$ |

## Solved Examples

## Greater Than and Less Than

Numbers can be compared by saying one is greater than another or one is less than another.

The symbol ">" means greater than. The symbol "<" means less than. Think of the wide part of the sign as an alligator's mouth eating the bigger number. (Hint: The open part of the sign is near the bigger number.)

Examples:


21 is greater than 10


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## Solved Examples

## Whole Numbers (continued)

It is very important to learn the addition facts. This table will help.

Choose a number in the top gray box and add it to a number in the left gray box. Follow both with a finger (one down and one across) until they meet. The number in that box is the sum of the two starting numbers.

An example is shown: $3+4=7$.

| + | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 3 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 4 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 5 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 6 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 7 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 8 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 9 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |

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## Solved Examples

## Whole Numbers (continued)

This is a hundreds chart.

Place a finger on 32. Move it up to subtract 10. Ten less than 32 is 22.

| 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 |

Place a finger on 51 . Move it down to add 10. Ten more than 51 is 61 .
Notice which direction to
move your finger when you add or subtract.

## Help Pages

## Addition Strategies

## Counting On

When adding two numbers, start with the bigger number and count on.

$$
\begin{gathered}
3+6= \\
3+6=9
\end{gathered}
$$

## Make A Ten

Make a ten to help add. When adding two numbers, take apart one of the numbers to "make a ten" with the other number.


$$
8+4=\ldots \quad 10+2=12
$$

## Doubles + 1

When adding two numbers that are close to a double, think of the double and add 1.

Think, what double is close to $3+4 ? 3+3$ is close to $3+4$.

$$
\begin{aligned}
& 3+4= \\
& \downarrow= \\
& 3+\underline{3}+\underline{1}=7
\end{aligned}
$$



Think of $3+4$ as $3+3+1$.

## Help Pages

## Subtraction Strategy

## Counting Back

When subtracting two numbers, start with the bigger number and count back.


