

## Instructions for Fact-by-Fact Math Drill

There are four groups of addition and subtraction math drill papers. *Easy addition* and *easy subtraction* drill facts to ten. *Hard addition* and *hard subtraction* drill facts through 18.

These math drill papers can be started about halfway through 1<sup>st</sup> grade or as soon as the student can write fast enough to answer 30 facts in one minute. It is important to follow these instructions to insure that every fact will be learned well. With enough practice, most children can do these papers.

Give student the first math drill sheet, and time him for one minute. If he has not finished in one minute, tell him to draw a line across the paper where he stopped at the end of the minute, then finish the paper and hand it in. Accept whatever he has completed with a word of praise. The first session is over at this point. Repeat the next day. Some first graders may not yet be able to write fast enough to complete this paper in one minute. Just keep practicing with the first paper until the student is able to complete it in one minute.

Once you have determined that the student is capable of writing fast enough to complete the paper in one minute, you may go on to the next paper. From then on try to do one paper each day. If the student cannot finish in one minute, have him draw his line, finish it, and hand it in. Immediately give him another paper with the same facts. If he still has not finished in one minute, give him one more try with the same facts. Give up to three tries but no more at any practice session. If he still has not finished, give practice with flashcards and try again later in the day or the next day.

At the beginning of the addition papers, adding *one* is not introduced one fact at a time. The first paper adds only zero. The next several papers gradually get more practice with adding *one*. Be sure student can add *one* confidently before beginning these papers.

1<sup>st</sup> graders should be able to complete easy addition and easy subtraction. At the beginning of 2<sup>nd</sup> grade, start over again with easy addition and easy subtraction. They will need a review of all the facts. 2<sup>nd</sup> graders should be able to complete hard addition and hard subtraction.

Occasionally you may find that you have progressed with the papers faster than your student has actually learned the facts and he can no longer finish the papers in one minute. If this happens, just back up to where he is comfortable, and start again from there.

These math drill papers work well with CLE's math drill sheets. Give one of CLE's math drill sheets every day, and watch the number of facts done per minute increase steadily. The goal for CLE's sheets is 40 facts in one minute. Continue much practice until student can reach 40 facts three days in a row.

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