APPENDIX A
SPEEDER CHARTS

SPEEDER CHARTS

Overview

Speeder charts help students to improve speed and accuracy with mental mathematics. Use the charts as an opening activity to start each class or session. Speeder charts offer the following benefits:

a) No down time when students enter the room.
b) Help to capture the attention of the students and get them thinking mathematically.
c) Help to create a teamwork and "progressive" attitude in the classroom.
d) Allow the teacher a few minutes to handle administrative responsibilities.

Each chart includes between 50 and 100 problems. The charts can be cut into half sheets (2 to a page) to conserve paper and to avoid distractions. One student will start with the problems and the other with the answers. The first student will progress through as many problems as he/she can within the allotted time (e.g. 3 min). Keep the allotted time consistent to track progress. The second student will verify answers and record all required information in the ***Speeder Charts Progress Report***. Students will then switch papers and repeat the process. Students can progress both in % correct and the number attempted. The ***Speeder Charts Progress Report*** is included so students can track their progress and celebrate their accomplishments.

The following topics are included (some with varying degrees of difficulty, i.e. GCF #1 and #2):

a) Four operations of whole numbers
b) Multiplication of decimals
c) Factors, product of prime factors, greatest common factor
d) Multiples and least common multiple
e) Squares and square roots
f) Exponents, powers, and standard form
g) Converting fractions to decimals and decimals to fractions
h) Prime and composite numbers
i) Multiplication and division of exponents with the same base

Interaction with a partner is the preferred method for using the Speeder charts; however, they can be used individually. Some of the Speeder charts are very challenging. Please review each chart to appropriately match the difficult with your students' abilities. You may want to decrease the number of questions, increase the time allotted or forego timing altogether. Calculators may be used at the teacher's discretion. Charts can also be used in reverse (i.e. convert decimals to fractions and fractions to decimals). Feel free to be creative and make your own (a blank template is included at the end of this section).

SPEEDER CHARTS PROGRESS REPORT
(included at the end of the student manual)

Date	Chart #	Time (min:sec)	# of questions correct	# of questions attempted	% correct (# correct ÷ # attempted)	Checker's name
Jan 1	*Addition #1*	*1:27*	*37*	*40*	*92.5%*	*Andrew M.*

Addition #1

2 + 10	8 + 4	8 + 10	9 + 7	8 + 8	10 + 7
5 + 5	2 + 7	5 + 2	4 + 5	7 + 5	9 + 5
3 + 8	7 + 6	9 + 3	9 + 9	8 + 9	3 + 5
8 + 6	4 + 3	6 + 5	5 + 6	6 + 7	6 + 6
8 + 7	7 + 8	4 + 9	9 + 6	2 + 6	8 + 5
4 + 1	3 + 2	5 + 7	6 + 2	5 + 3	6 + 8
9 + 5	2 + 5	2 + 2	7 + 5	2 + 5	6 + 3
3 + 5	8 + 6	8 + 5	6 + 8	7 + 8	8 + 4
7 + 9	9 + 7	4 + 8	3 + 2	2 + 6	7 + 3
3 + 1	3 + 9	9 + 4	8 + 3	1 + 5	8 + 2
2 + 9	9 + 11	7 + 6	6 + 9	9 + 7	9 + 10
9 + 4	2 + 6	8 + 4	8 + 6	7 + 3	4 + 2

Addition #1 (Answers)

12	12	18	16	16	17
10	9	7	9	12	14
11	13	12	18	17	8
14	7	11	11	13	12
15	15	13	15	8	13
5	5	12	8	8	14
14	7	4	12	7	9
8	14	13	14	15	12
16	16	12	5	8	10
4	12	13	11	6	10
11	20	13	15	16	19
13	8	12	14	10	6