

**Rocket Math** works so well because it teaches no more than two new facts and their reverses on each practice page. For example, as you can see on page 3, the very first addition practice page, [Set A](#), introduces  $1+3$ ,  $3+1$ ,  $1+2$ ,  $2+1$ , while [Set B](#) adds  $4+1$ ,  $1+4$ ,  $5+1$ ,  $1+5$ , shown on page 4. Sometimes the pace is slower adding only one fact on a page (for example [Multiplication Sets L, M, N, O](#) on pages 5-8) where experience has shown students need a slower pace. The program allows each child to go at his or her own pace, taking up to six days to master those two facts as needed. Each day in class students practice in pairs for two to three minutes each. An explanation of how students practice follows on the next page. Students can, of course, also practice the same way at home. The [parent letter](#), on page 9, explains how this should be done at home.



After practicing each day the students take a one-minute test (found in the center of each practice sheet). This test gives them an opportunity daily to show they have learned a set of facts by writing answers as fast as they can write. Before beginning the program all students are given [the writing speed test](#), on page 10, which is used to set their [individual writing speed goals](#), on page 11. If students meet or beat their goal they move on to the next sheet in the sequence. If they don't pass the test, they practice on the same sheet the following day. Once students "pass" a set of facts, they color in the letter for that set on their "[Rocket Chart](#)" on page 12, and then graduate on to the next practice page. Rocket Math includes several [award certificates](#), shown on pages 13-18, that reinforce student learning and increase their motivation.

Rocket Math has progress monitoring built into the program. Once a week students take a [two-minute progress monitoring test](#), of all the facts in the operation they are practicing, on page 19. Each student has an [individual graph](#), on which to graph their increasing fluency with math facts, see page 20. These graphs demonstrate student learning and should be shared with parents. The complete, informative and entertaining teacher directions are available for free download from our website so you can completely familiarize yourself with the program before ordering.

## How Students Practice

We recommend students practice in pairs in school. At home students should practice with a parent or a responsible sibling.

- One student, the “learner” sits with the [practice sheet](#), like pages 5-8, in front of him/her. The problems for practice go in a circle around the outside of the page and **should not** have the answers written in. The learner will practice only these outside facts.
- The learner reads each fact (**not just the answer**) aloud and says the answer.
- The other student, the “checker” has the [answer key](#), page 21, and listens for a hesitation or an error on one of the facts. That is a fact that needs extra practice. So the checker
  1. **tells the answer** and then
  2. asks the learner to **repeat** the problem and the answer three times.
  3. asks the learner to **back up three problems** and begin again.
- Students go around the outside of the page as many times as they can in the two or three minutes allotted for practice. At home, we recommend working two or three minutes or once around the outside.





Name \_\_\_\_\_

Orbit clockwise around the page with your co-pilot for about 2-3 minutes. Say all the problems and answers in order.

Start



1 +3    2 +1    3 +1    1 +2    2 +1    1 +3    1 +2    2 +1    1 +3    3 +1

1 +2

2 +1

1 +3

1 +2

3 +1

1 +3

1 +2

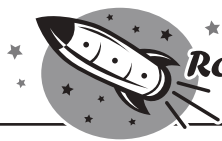
3 +1

1 +3

**One-Minute Test**      Goal       Completed

2 +1	1 +3	1 +2	3 +1	2 +1	3 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2 +1	1 +3	1 +2	3 +1	2 +1	3 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3 +1	1 +3	1 +2	2 +1	2 +1	3 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2 +1	1 +3	1 +2	3 +1	2 +1	3 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2 +1	1 +3	1 +2	2 +1	1 +3	3 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3 +1	1 +3	2 +1	1 +2	2 +1	3 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2 +1	1 +3	3 +1	1 +2	2 +1	3 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

1 +3    2 +1    1 +2    1 +3    2 +1    3 +1    1 +2    1 +3    3 +1    2 +1



Name \_\_\_\_\_

Orbit clockwise around the page with your co-pilot for about 2-3 minutes. Say all the problems and answers in order.

Start



1 +4    4 +1    1 +5    5 +1    1 +3    4 +1    2 +1    5 +1    3 +1    1 +4

1 +2

4 +1

1 +5

4 +1

1 +2

1 +5

1 +4

5 +1

1 +3

**One-Minute Test**

Goal  Completed

5 +1	1 +4	1 +2	3 +1	2 +1	1 +3	4 +1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1 +5	1 +2	1 +3	5 +1	1 +4	1 +2	3 +1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4 +1	1 +5	1 +2	2 +1	1 +3	1 +4	3 +1
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2 +1	5 +1	4 +1	1 +5	3 +1	4 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1 +4	2 +1	1 +3	2 +1	4 +1	3 +1	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2 +1	1 +3	4 +1	5 +1	4 +1	1 +3	1 +2
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5 +1	1 +3	4 +1	2 +1	3 +1	1 +4	1 +5
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4 +1	1 +3	1 +2	5 +1	2 +1	3 +1	1 +4
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

1 +3    2 +1    5 +1    1 +4    1 +2    4 +1    2 +1    5 +1    1 +3    4 +1



Name \_\_\_\_\_

Orbit clockwise around the page with your co-pilot for about 2-3 minutes. Say all the problems and answers in order.

$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$
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Start


 $\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$

**One-Minute Test**

Goal  Completed

$\begin{array}{r} 2 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$
$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$
$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$
$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$
$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$
$\begin{array}{r} 0 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 8 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$
$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$

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

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$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ \times 0 \\ \hline \end{array}$
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Name \_\_\_\_\_

Orbit clockwise around the page with your co-pilot for about 2-3 minutes. Say all the problems and answers in order.

$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$
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Start



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

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

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

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

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

$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$

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

$\begin{array}{r} 0 \\ \times 5 \\ \hline \end{array}$

$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$

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

**One-Minute Test**

Goal  Completed

$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$
$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$
$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$
$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$
$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$
$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$
$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$

$\begin{array}{r} 0 \\ \times 7 \\ \hline \end{array}$

$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$

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

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

$\begin{array}{r} 0 \\ \times 1 \\ \hline \end{array}$

$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$

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

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

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

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



Name \_\_\_\_\_

Orbit clockwise around the page with your co-pilot for about 2-3 minutes. Say all the problems and answers in order.

$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$
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Start

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

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

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

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

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

$$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$$

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

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

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

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

One-Minute Test

Goal

Completed

$\begin{array}{r} 1 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>
$\begin{array}{r} 0 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>
$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>
$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>
$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>
$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>
$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>
$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>
$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$
<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>	<input style="width: 40px; height: 30px;" type="text"/>

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

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

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

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

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

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

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

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

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

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



Name \_\_\_\_\_

Orbit clockwise around the page with your co-pilot for about 2-3 minutes. Say all the problems and answers in order.

$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$
--	--	--	--	--	--	--	--	--	--

Start



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

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

$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$

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

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

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

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

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

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

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

**One-Minute Test**

Goal  Completed

$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 0 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$
$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$
$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$
$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$
$\begin{array}{r} 1 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$	$\begin{array}{r} 0 \\ \times 7 \\ \hline \end{array}$
$\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$
$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$

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

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

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

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

$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$

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

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

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

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

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





### **Dear Parents,**

This year my students are going to be spending time daily practicing and learning math facts, beginning in the operation of \_\_\_\_\_. Our class will keep working on these facts until everyone knows all the facts in this operation instantly, without any pause before answering. We will be using a program called Rocket Math. It will take only a few minutes each day of class time, but students will keep working until they have mastered all the facts. A fact is mastered when it can be answered instantly, without any pause. Rocket Math is unique because it teaches only 2 facts and their reverses on each page. For example  $6 \times 3$ ,  $3 \times 6$ ,  $4 \times 5$  and  $5 \times 4$ . The program allows each child to go at his or her own pace, taking as many days to master those two facts as needed. Students are given an opportunity daily to show they have learned a set of facts by passing a test. Once students "pass" a set of facts, they color in the letter for that set on their "Rocket Chart."

You can help your child progress and learn faster by practicing at home. Any day your child does not pass a set of facts, he/she will have that day's practice sheet to bring home as homework. It will help a great deal if you will practice with your child for five minutes with that sheet. Here's how we recommend you practice:

- *Your child sits with the practice sheet in front of him/her. The problems for practice go in a circle around the outside of the page and should not have the answers written in. You will work only these outside facts. You may wish to tape paper over the inside part. This is the test that your child took that day.*
- *Your child reads each fact (not just the answer) aloud and says the answer.*
- *If you hear either the slightest hesitation or an error on one of the facts, give your child some extra practice on that fact by immediately giving your child the answer and asking him/her to repeat the problem and the answer again.*
- *Your child then backs up three problems and begins again.*
- *If there is no hesitation or mistake when the problem is reached this time, be sure to praise your child and let him/her continue. Go once around the outside of the page. This should only take about five minutes. If you would like to do a second session of practice, wait at least an hour, or try it again in the morning. When working on memorizing facts, two short sessions with time in between, is much more helpful than one very long session.*
- *Your child will be able to explain this procedure to you because it is the same that we practice in class.*

Learning all the facts in an operation is a lot of work, but future success in math is dependent upon knowing facts so well that the answers come automatically without much thinking. Especially in a world of calculators, being able to compute math facts mentally is needed just to know if the calculator answer is correct. You can also help by sharing with your child the importance of learning math facts. Thank you so much for your support of this critical learning goal. I will keep you notified of your child's success in this important task.

**Sincerely,**



Name \_\_\_\_\_

### Writing Speed Test

Wait for your teacher's signal, then write the number in each box. You will have one minute.

23	7	28	4	67	6
----	---	----	---	----	---

6 boxes

54	5	57	9	45	12
----	---	----	---	----	----

12 boxes

81	4	42	1	66	18
----	---	----	---	----	----

18 boxes

19	2	30	3	13	24
----	---	----	---	----	----

24 boxes

36	1	69	5	11	30
----	---	----	---	----	----

30 boxes

68	9	58	7	17	36
----	---	----	---	----	----

36 boxes

94	6	47	8	10	42
----	---	----	---	----	----

42 boxes

70	8	35	9	21	48
----	---	----	---	----	----

48 boxes

57	4	24	5	16	54
----	---	----	---	----	----

54 boxes



Name \_\_\_\_\_

### Goal Sheet

Identify your student's goals by circling or highlighting an entire row.

Boxes Filled	15-Second Placement Probe	1-Minute Daily Test	2-min Annual Goal for IEP
18 or less	Place into <i>Rocket Writing for Numerals</i> to improve writing speed		
18	4	19	38
20	5	20	40
21	5	21	42
22	5	22	44
23	5	23	46
24	6	24	48
25	6	25	50
26	6	26	52
27	6	27	54
28	7	28	56
29	7	29	58
30	7	30	60
31	7	31	62
32	8	32	64
33	8	33	66
34	8	34	68
35	8	35	70
36	9	36	72
37	9	37	74
38	9	38	76
39	9	39	78
40	10	40	80
41*	10	41	80
42*	10	42	80
43*	10	43	80
44*	11	44	80
45*	11	45	80
46*	11	46	80
47*	11	47	80
48*	12	48	80
49*	12	49	80
50*	12	50	80
51*	12	51	80
52*	13	52	80
53*	13	53	80
54*	13	54	80

\*Try to reach your goal for up to six days. After the sixth day, if you are able to surpass 40 in a minute without an error, advance onto the next letter.

#### Write your **STARTING** goals here

Whenever you beat your goal, cross it out and write down your new "record score" as your goal.

My goal for 15-second Placement Probe \_\_\_\_\_

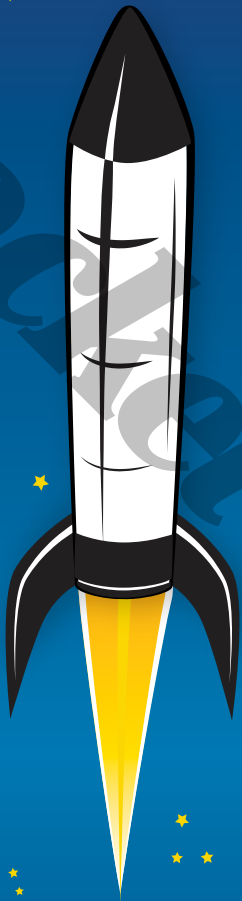
My goal for a One-Minute Daily Test \_\_\_\_\_



Name \_\_\_\_\_

# Rocket Chart

SET	1 <sup>ST</sup> <sub>TRY</sub>	2 <sup>ND</sup> <sub>TRY</sub>	3 <sup>RD</sup> <sub>TRY</sub>	4 <sup>TH</sup> <sub>TRY</sub>	5 <sup>TH</sup> <sub>TRY</sub>	6 <sup>TH</sup> <sub>TRY</sub>
Z						
Y						
X						
W						
V						
U						
T						
S						
R						
Q						
P						
O						
N						
M						
L						
K						
J						
I						
H						
G						
F						
E						
D						
C						
B						
A						



# Wow!

You moved up  
the Rocket Chart!

To:

Signature

Date





**You are  
Awesome!**

**You are making  
incredible progress  
with your math facts.**

**To:**

Signature

Date





**Your Progress in the  
Rocket Math program  
is out of this World!**

**Be Proud!!!**

**To:**

Signature

Date



# Congratulations

You are getting faster and faster



You have been making steady progress in the Rocket Math program.

To:

Signature

Date





# Thank you

to my **Rocket Math Helper**

**You helped me get better!**

**To:**



# Great Work!



**Congratulations to**

**for passing the one-minute timing!**

**Signed**

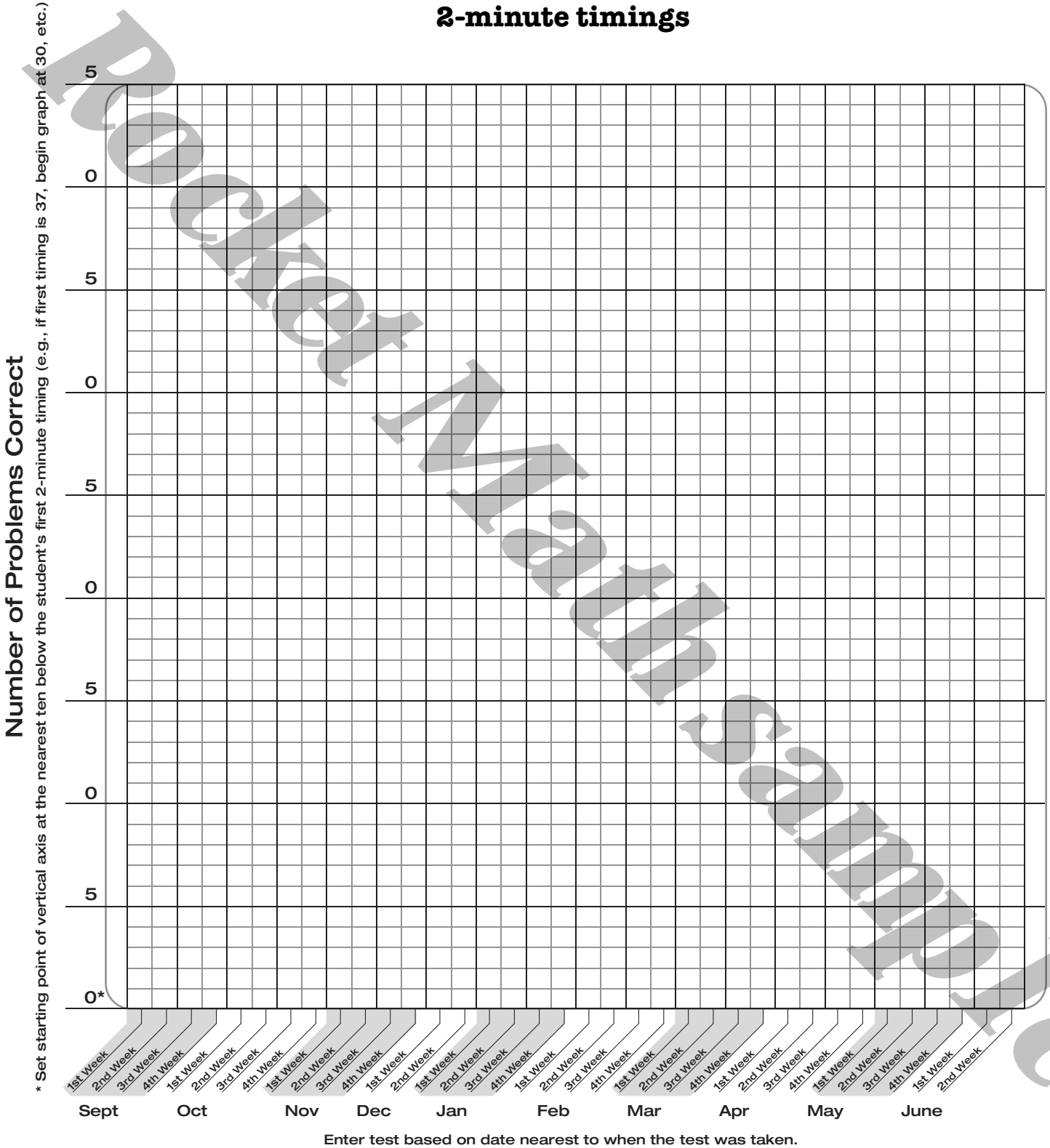






Name \_\_\_\_\_

### Individual Student Graph of 2-minute timings





$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 0 \\ \times 4 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 5 \\ \times 0 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 6 \\ \times 9 \\ \hline 54 \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 6 \\ \times 0 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 0 \\ \times 6 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline 54 \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 6 \\ \times 9 \\ \hline 54 \end{array}$$



$$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 8 \\ \times 3 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline 54 \end{array}$$

$$\begin{array}{r} 0 \\ \times 8 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

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

$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 2 \\ \times 0 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 3 \\ \times 0 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 0 \\ \times 3 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 8 \\ \times 3 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 0 \\ \times 2 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 9 \\ \times 2 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 1 \\ \times 0 \\ \hline 0 \end{array}$$