



## **% Math Fluency Routine**

Target		Grade Level
1	I can x/÷ facts to 12	3rd-4th
2	I can x/÷ multi-digit whole numbers.	4th-5th
3	I can identify and continue a pattern of rational numbers.	4th-6th
4	I can solve for an unknown in any location.	4th - 8th
5	I can compare decimals.	5th- 6th
6	I can round decimals.	5th- 6th
7	I can +/- decimals	5th- 6th
8	I can x/÷ decimals	5th- 6th
9	I can recognize and generate equivalent fractions.	5th- 6th
10	I can +/- fractions.	5th- 6th
11	I can x/÷ fractions	5th - 8th
12	I can solve using the correct order of operations	5th - 8th
13	I can convert between decimals, fractions, and percents fluently.	7th - 8th
14	I can +/- integers	7th - 8th
15	I can x/÷ integers.	7th - 8th

**Launch**: Every student starts on target 1. Once they get a 3 or 4 on the fluency quiz, they are able to move on to the next target. The goal is to pass all grade level fluency targets by the end of the year (or even move on to above grade level targets). I set aside class time once a week just for fluency- for about an hour. However students can always do fluency work if they finish classwork early and they are expected to work on fluency for HW. Invest parents in this routine by sending home <u>a letter</u> explaining how it works, and providing progress reports throughout the year.

**Practice**: Students can practice their target online using this <u>document</u>. Or they can take worksheets from school which are in 15 labeled bins (one for each target) with answer keys. I encourage students to practice online during class time and take worksheets home.





**Quizzes**: Once they have practiced for a while and feel like they can master the target, they can ask to take a quiz. Quizzes can be taken once a week maximum, and need to be taken once a month minimum. I created timed quizzes for each target using classmaker (it's free). Quizzes on each target can be found <a href="here">here</a>. The grading scale is below so students can see which percents translate to which grade. Once students finish a quiz or they run out of time, a grade will immediately appear.

**Track**: Once students have their grade, they need to show me their computer, so I can input their correct grade into my <u>teacher fluency tracker</u>. They also need to put their grade into their <u>student trackers</u>.

**Growth**: Looking at the trackers, if they have taken this same target before and improved, then they may fill in one box by their name. 5 boxes translates to 1 HW pass that they can use in T3. Also if they have improved, students will fill out an improvement letter for parents so parents are aware of their growth as well.

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<sup>&</sup>lt;sup>1</sup> Note: this tool was changed to use of ASSISTments in 2019-2020 SY



**No Growth**: If a month passes and a student has not asked to take a fluency quiz, I require them to take one. If after a month they have not grown at all (either because they only took the quiz once or because they took it multiple times and got the same grade) then that student must fill out a <u>no progress</u> <u>letter</u>. In this letter, students must explain why they haven't made progress and what they can do to change that, and they must get it signed by their parent.

**Grading**: I used this <u>rubric</u> for grading and just gave habit of work grades, but students also used their fluency trackers as evidence in their T2 portfolios.

**Additional info**: Once/if students pass all grade level targets, they can move on to above grade level targets. If they pass all 15 targets I give them a math project to work on but they can also be tutors to students still working on fluency targets they've passed.

If a student is stuck on a target they can ask for a tutor. A tutor is anyone who has passed the target they are stuck on. They can also work with a buddy-someone working on the same target as them. They can do this during fluency time or at recess.