

The Fraction Actions Method!

(making fraction skills easy)

Getting Ready for Fractions

Multiplication Facts – You should learn and master these. If you have put in a good effort and still haven't gotten them totally memorized, then you should try skipping to the division facts practice and come back to this when you master the division facts.

- Set a timer for 10 minutes.
- Choose the All Facts Drill
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
 - (secret – click the “show all questions” button when the drill starts to go even faster)
- Do this every day until you can go 10 times in 10 minutes!

Division Facts – You will want to make looking at numbers and knowing the major factors simple and easy. If you are weak on multiplication facts, learning and practicing your division facts will help you get stronger, faster and better.

- Set a timer for 10 minutes.
- Choose the All Facts Drill
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
 - (secret – click the “show all questions” button when the drill starts to go even faster)
- Do this every day until you can go 10 times in 10 minutes!

Short Division – Long division isn't very handy for easy problems. The way to divide easy problems is called short division. For those of you who have never been shown short division, Math6.org has a lesson and guided practice to help you learn the skill! Check them out; you'll be glad you did.

- Set a timer for 10 minutes.
- You might need paper, but in the long run, I would like to see you be able to do these in your head!!
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
 - (secret – click the “show all questions” button when the drill starts to go even faster)
 - If you make too many mistakes, use paper or choose the study button to review the method.
- Do this every day until you can complete the “Short Division Drill” 5 times in 10 minutes!

Divisibility Rules – Unlike the normal divisibility rules, the ones for fractions are simple and very quick. RELAX! Most fractions are simple 2 and 3 digit numbers and most of the fractions you will be asked to simplify are divisible by 2 and 3! The rules you need to master are the 2 rule, 3 rule, 5 rule, 7 rule, and the 11 rule. It's not as hard as it sounds and you can do this in a short period if you follow the steps. I have built a special divisibility rules section of Math6.org to help you with the easy version of these rules.

- Set a timer for 10 minutes.
- Choose the rule you want to work on.
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
 - (secret – click the “show all questions” button when the drill starts to go even faster)
 - If you make too many mistakes, choose the study button to review the rule.
- Do this every day until you can complete the “Master's Quiz” 5 times in 10 minutes!

Prime Factorization – By now, you should be able to recognize major factors and have the divisibility rules to help you ladder the numbers you don't recognize. If you put the effort into the steps above the next section will be easy and you will be fast at it!

1. Learn to think in terms of primes!
 - a. This practice will help you learn to think 6 and write $2 \cdot 3$.
 - b. Keep practicing until you can complete the "Thinking in Primes Drill" 10 times in 5 minutes!
2. Easy Prime Factoring Practice!
 - a. This practice will offer you the easy numbers to quickly write the prime factors.
 - b. You should not use paper to help you with any of these.
 - c. Keep practicing until you can complete the "Easy Prime Factoring Drill" 10 times in 10 minutes!
3. Ladder practice.
 - a. This practice will show you numbers that you probably need to toss into a ladder.
 - b. You will need paper, pencil and a place to work to practice this.
 - c. The drills are short and you should be able to quickly complete 5 in 10 minutes.

Working with Fractions

Now that you have the prerequisite skills under control, the rest of this is going to be easy!

Reducing Fractions – The foundation of everything fractions is prime factorization. Use the lesson and guided practice for reducing fractions and see how the skills you became good at earlier will make reducing fractions a snap!

- Set a timer for 10 minutes.
- Choose the Reducing Drill
- Using the "Try Again" button, see how many times you can make 100% in ten minutes.
- Do this every day until you can go 5 times in 10 minutes!

Recognizing Improper Fractions – Believe it or not, I have found that many students actually struggle with remembering and applying this simple skill. So, I built a drill to make sure this is easy for you. Let's make sure you can easily recognize an improper fraction. Repeat this drill until you can make are perfect – 20 times in less than 10 minutes!

Simplifying Fractions –Use the lesson and guided practice to put your skills together and simplify fractions faster and easier than anyone else in your class!

- Set a timer for 10 minutes.
- Choose the Simplifying Drill
- Using the "Try Again" button, see how many times you can make 100% in ten minutes.
- Do this every day until you finish the drill 5 times in 10 minutes!

You are ready to begin computing with fractions. Since you have worked hard to learn my method of Simplifying Fractions, I will make sure that everything to do with fractions computation will be as easy as simplifying fractions are now!

Multiply Fractions – Use the lesson and guided practice to put your skills together and multiply fractions so easily that your classmates will beg you to show them the secret!

- Set a timer for 10 minutes.
- Choose the Multiplying Fractions Drill
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
- Repeat this step every day until you finish the drill 5 times in 10 minutes!

Dividing Fractions – Dividing Fractions is just as easy as multiplying them except you have to flip the divisor. (reciprocal)! Use the lesson and guided practice to put your skills together and divide fractions faster and better than even your teacher!

- Set a timer for 10 minutes.
- Choose the Dividing Fractions Drill
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
- Repeat this step every day until you finish the drill 5 times in 10 minutes!

Subtracting Fractions – You don’t have to make this easy skill complicated. Just do step 1!! Use the lesson and guided practice to become a super star!

- Set a timer for 10 minutes.
- Choose the Subtracting Fractions Drill
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
- Repeat this step every day until you finish the drill 3 times in 10 minutes!

Adding Fractions – Works exactly the same as Subtracting fractions except you will need to simplify your answers more often. Um... you got pretty good at simplifying fractions earlier ... didn’t you? Use the lesson and guided practice to make sure nothing goes wrong.

- Set a timer for 10 minutes.
- Choose the Adding Fractions Drill
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
- Repeat this step every day until you finish the drill 3 times in 10 minutes!

Mixed Numbers

Now that you have fractions under control, mixed numbers are just one more little step and you will top out your teacher’s grade book with your expertise!

Adding Mixed Numbers is just as easy as adding fractions except when you simplify your fraction, you might have to regroup into the whole numbers. Whoop de do – carry a one? That can’t trip a superman, like you, up! Don’t worry, it really isn’t difficult. Check out the lesson and guided practice to see how simple this will be.

- Set a timer for 10 minutes.
- Choose the Dividing Fractions Drill
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
- Repeat this step every day until you are perfect – 3 times in a row for 3 days in a row!

Subtracting Mixed Numbers – This is without doubt the most difficult skill for any young mathematician to get. Don't worry – I understand your problems. Attack this skill with renewed patience and vigor and you will get the hang of it and quickly master it.

- Learning to regroup fractions –
 - Yep! Regrouping is a sometimes horror when you subtract and regrouping fractions can be a little tricky.
 - Practice renaming some mixed numbers!!
 - Practice makes perfect and perfect makes **easy!**
 - Set a timer for 10 minutes.
 - Choose the Renaming Mixed Numbers Drill
 - Using the “Try Again” button, see how many times you can make 100% in ten minutes.
 - Repeat this step until you are perfect – 10 times in a row.
 - Try the Renaming Millionaire Game and get your name posted in the Hall of Fame!
- Now that you have mastered the art of regrouping with fractions, you are really ready to Subtract Mixed Numbers. The hard part is behind you, check out the lesson and guided practice to see how simple this will be.
 - Set a timer for 10 minutes.
 - Choose the Subtracting Fractions Drill
 - Using the “Try Again” button, see how many times you can make 100% in ten minutes.
 - Repeat this step every day until you are perfect – 3 times in a row for 3 days in a row!

Changing Mixed Numbers into Improper Fractions – You are almost a total Fraction Actions Master! The **last** two skills are pretty easy, but you will need to practice Changing Mixed Numbers into Improper Fractions to master these. After learning how to Rename Fractions, you will find this next one a snap! Watch the Lesson and try the Guided Practice to get ready!

- Set a timer for 10 minutes.
- Choose the Changing Mixed Numbers into Improper Fractions Drill.
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
- Repeat this step every day until you finish the drill 5 times in 10 minutes!

Multiply Mixed Numbers – All of your hard work for the past month or so is about to pay off in a major way. Your teacher probably showed you a very hard way to Multiply Mixed Numbers, but having worked so diligently on the Fraction Actions Method, you will soon be multiplying and dividing mixed numbers so quickly and easily that your teacher and classmates will accuse you of cheating with a calculator! Watch the Lesson and try the Guided Practices to learn and practice the steps.

- Set a timer for 10 minutes.
- Choose the Multiplying Mixed Numbers Drill
- Using the “Try Again” button, see how many times you can make 100% in ten minutes.
- Repeat this step every day until you are perfect – 3 times in a row for 3 days in a row!

Dividing Mixed Numbers – Is the same skill as Multiplying Mixed Numbers except you have to flip the divisor (reciprocal). However, just to make it a little easier, I have included a Fraction Actions Method way to flip the divisor while you change the mixed number into an improper fraction!

- **Mixed Number Reciprocals** –
 - Practice creating a reciprocal at the same time that you turn the improper fraction into a mixed number!
 - Watch the Lesson and try the Guided Practice to see how this is done. Then...
 - Set a timer for 10 minutes.
 - Choose the Reciprocals Drill.
 - Using the “Try Again” button, see how many times you can make 100% in ten minutes.
 - Repeat this step every day until you are perfect – 10 times in a row.
- Now that you have mastered creating reciprocals at the same time that you turn an improper fraction into a mixed number, you are really ready to Divide Mixed Numbers. Use the Lesson and Guided Practice to show you how to make this challenge easy.
 - Set a timer for 10 minutes.
 - Choose the Dividing Mixed Numbers Drill
 - Using the “Try Again” button, see how many times you can make 100% in ten minutes.
 - Repeat this step every day until you are perfect – 3 times in a row for 3 days in a row!

Masters Stay Sharp!

You are very proud of yourself and you should be! Enjoy the feelings of confidence and pride as your teacher uses you as an example of an outstanding student! You and I know that you earned that. But – don’t let your skills disappear. Mathematics isn’t like riding a bicycle. If you don’t test yourself at regular intervals, you will forget how to do this. For the next 6 weeks, come back weekly and take the Fraction Actions Test. Do not accept scores less than perfect! If you need to test again, test again! If you need to review a skill, click the study button. Relearning a skill is much easier and faster than the first time through and there is no point returning to any level below perfect, easy and fast! After you have done your weekly testing for 6 weeks, you can drop to every other week for 8 weeks and then once a month every month until you finish seventh grade. You will never need help on fractions again! And, you’re welcome!

Use the next set of pages to track your Fraction Actions Method progress!

The Fraction Actions Method!

The skills are listed in the order that you should master them. Follow the directions on the website and the note. Keep track of your progress by recording your evaluation in the appropriate box. Some skills will take longer than others to master. Relax and work it, you'll be strong and fast very soon!

For keeping records - record the number of perfect tries out of the total number of tries.

Skill	Lesson	Guided Practice	Day 1	Day 2	Day 3	Day 4	Day 5	Master?
Example		✓	3/5	4/5	5/5			✓
Multiplication Facts								
Factor Facts								
Short Division								
Divisibility Rules								
2 rule								
3 rule								
5 rule								
7 rule								
11 rule								
Master's Quiz								
Prime Factorization								
Easy Primes								
Easy Factors								
Factor Ladders								
Reducing Fractions								
Recognizing Improper Fractions								
Simplifying Fractions								
Multiply Fractions								
Dividing Fractions								
Subtracting Fractions								
Adding Fractions								
Adding Mixed Numbers								
Renaming Mixed Numbers								
Subtracting Fractions								
Changing Mixed Numbers into Improper Fractions								
Multiply Mixed Numbers								
Mixed Number Reciprocals								
Dividing Mixed Numbers								
Masters Stay Sharp								
Week 1								
Week 2								
Week 3								
Week 4								
Week 5								