This worksheet is all review from Basic Math/6th grade. Review each of these concepts going as in-depth as needed.

Mixed numbers and Improper fractions

An improper fraction is the most simplified version. Making an improper fraction a mixed number makes a totally fine answer not simplified; that is unnecessary and bad. You can't do math with mixed numbers so students need to change an mixed numbers into improper fractions. Final answers should **always** be improper fractions, not mixed numbers.

Practice changing between improper fractions and mixed numbers:

- $\frac{18}{7}$
- $\frac{13}{4}$
- $6\frac{1}{3}$
- $5\frac{43}{8}$

Practice Mixed Number problems:

- $5\frac{1}{4} \cdot 3\frac{1}{7}$ $\qquad \frac{33}{2}$
- $\sqrt[3]{4\frac{17}{27}} \div 4\frac{1}{6}$ $\qquad \frac{2}{5}$
- $5\frac{1}{16} \div 1\frac{13}{36} \cdot 2\frac{39}{54}$ $\qquad \frac{81}{8}$
- $3\frac{1}{12} + 5\frac{7}{18} - 6\frac{5}{6}$ $\qquad \frac{59}{36}$
- $(2\frac{2}{3})^2 - \sqrt{1\frac{25}{144}}$ $\qquad \frac{217}{36}$

Complex Fractions

When you have a fraction over another fraction it's called a complex fraction. But all it really is, is a fraction being divided by (the "big" fraction bar) another fraction. First, do the top and then do the bottom. Once you have a single fraction on the top and bottom, you can flip and multiply.

Practice Complex Fraction Problems:

- $\dfrac{2\frac{4}{24}+5\frac{1}{36}}{6\frac{6}{54}-3\frac{7}{12}}$ $\quad \frac{37}{13}$
- $\dfrac{7\frac{1}{18}-2\frac{5}{12}}{4\frac{138}{216}}$ $\quad 1$

Order of Operations with Mixed Numbers

Nothing new to teach here as the students already know the order of operations and know how to do everything with mixed numbers/fractions. This just allows them to put all their skills together to solve one problem.

Practice Mixed Number Order of Operation problems:

- $(2\frac{1}{3})^2+1\frac{10}{74}(3\frac{5}{8}-2\frac{1}{12})-\sqrt{7\frac{1}{9}}$ $\quad \frac{163}{36}$
- $\sqrt{5\frac{1}{16}}(2\frac{7}{18}+1\frac{1}{27})\div(4\frac{1}{6}-2\frac{2}{9})$ $\quad \frac{111}{28}$
- $\sqrt[3]{3\frac{3}{8}}+(1\frac{1}{3})^3-2\frac{4}{5}(3\frac{2}{28}-2\frac{5}{21})$ $\quad \frac{83}{54}$
- $1\frac{58}{144}\div(4\frac{5}{12}-1\frac{11}{18})+\sqrt[3]{4\frac{12}{125}}+2\frac{4}{15}$ $\quad \frac{131}{30}$