

Ma 091 ~ Number Systems PreTest Study Guide

For this test, you will have to demonstrate proficiency in the following skills:

- Converting fractions to decimals and vice versa (*review from 081*)
- Solving problems that require understanding the Order of Operations rule with integers, fractions, and decimal numbers (*review from 081*)
- Exponents fractions (*review from 081*)
- Use the Distributive Property to simplify expressions
- Solving one-, two-, and multi-step equations with integers, fractions, and decimals (*review from 082*)
- Solve proportions (Ex: $\frac{x}{4} = \frac{14}{28}$)
- Solve proportions presented in words (Ex: The recipe calls for 3 parts flour to every 2 parts sugar. How much flour is needed if you have 4 cups of sugar?)
- Simple work problems (Ex: 2 people can do a job in 5 hours. How long will it take 5 people to do the same job?)
- Turning word problems into linear equations
- Solving inequalities (Ex: $2x + 5 < 9$)
- Graphing inequalities on a number line (Which way should the arrow point? Should the endpoint be an open or a filled circle?)
- Solving equations for a variable. (Ex: The formula for distance is $d = rt$, or distance = rate * time. If we know the distance and the time, we can find the rate: $r = \frac{d}{t}$)
- Applying any of the above to a real-world situation