**Honors Practice: Rational Equation Word Problems Name:**

1. Bob can paint a fence in 5 hours, and working with Jen, the two of them painted a fence in 2 hours. How long would it have taken Jen to paint the fence alone?
   1. Write an equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Solution = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Jeff, Rico, and Van are mowing lawns in their neighborhood. Working alone, Jeff can mow a lawn in 30 minutes, Rico can mow the same lawn in 60 minutes, and Van can mow the lawn in 40 minutes. How long will it take the three boys to mow the lawn if they work together, rounded to the nearest minute?
   1. Write an equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Solution = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Jim and Alberto have to paint 6,000 square feet of hallways in an office building. Alberto works twice as fast as Jim. Working together, they can complete the job in 15 hours. How long would it take each of them working alone?
   1. Write an equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Alberto = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Jim = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Carlos can travel 40 miles on his scoot in the same time it takes Paul to travel 15 miles on his bicycle. If Paul rides his bike 20 miles per hour slower than Carlos rides his scooter, find the speed for each.
   1. Write an equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Carlos = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Paul = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_