

## CCT Readiness Assessment - Chemistry

Name: \_\_\_\_\_

Please answer the following questions WITHOUT using a calculator. Show your work. When finished, scan and send to the instructor or hand to the instructor at CCT. Please feel free to contact the instructor with any questions. The instructor e-mail address is available on the CCT website. The instructor will review your results to determine what if any additional pre-course work is required to ensure the student is prepared for the start of the semester.

1. Given that  $F=ma$  and  $F= -kx$ , solve for  $k$  if  $m=2\text{kg}$ ,  $a=3 \text{ m/s}^2$  and  $x=7\text{m}$ . Include units

2. Convert 500g, To cg. \_\_\_\_\_

To kg. \_\_\_\_\_

To mg. \_\_\_\_\_

3. How many feet are in 20 inches if 1 foot = 12 inches?

How many cm are in 20 inches if 1 inch = 2.54 cm.?

4. If  $PV = nRT$ , rearrange the equation to solve for  $n$ .

5. If,  $13 = x - \frac{4x}{3}$ , solve for  $x$