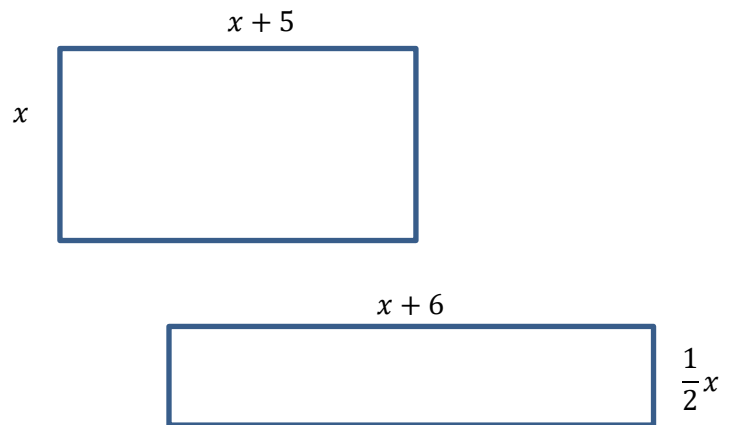


5. Mr. Gregg drank $1\frac{1}{2}$ cups of milk, $\frac{3}{4}$ cups of orange juice and 3 cups of coffee. What was his total fluid consumption for the day? If he does this every day, how much did he consume in a week? (8 points)

6. The two rectangles in the picture have the same perimeter. Solve the equation $2x + 2(x + 5) = 2\left(\frac{1}{2}x\right) + 2(x + 6)$, then find the dimensions of both rectangles. (16 points)



7. Find the Greatest Common Factor of 16 and 18. (8 points)

8. Find the Least Common Multiple of 16 and 18. (8 points)

9. Consider the following set, and list the elements that belong to the set in each part below:

$$\left\{ 0.\overline{13}, -\sqrt{4}, \frac{9}{11}, \frac{1}{\sqrt{2}}, 3\pi, |-1|, \frac{0}{5}, 8, 0.25 \right\} \text{ (25 points)}$$

a. \mathbb{R}

b. \mathbb{Z}

c. \mathbb{Q}

d. \mathbb{N}

e. \mathbb{I}

10. Simplify the expression. (10 points)

$$\frac{(-2)^4 + 3\sqrt{80+1}}{-3^3 + |-2(3+1)|}$$

11. Solve the equations. (12 points each)

a. $\frac{19}{9}x + \frac{2}{15} = -\frac{1}{3}x - \frac{19}{45}$

b. $\frac{2x-9}{7} - 1 = \frac{4}{3}x$

Part II. Submit your written answers to these questions into the Final Exam, Part 2 dropbox.

12. Perform the operations by hand. You must show work on these problems to receive credit. You may check your answers in a calculator, but give exact answers in all cases. (8 points each)

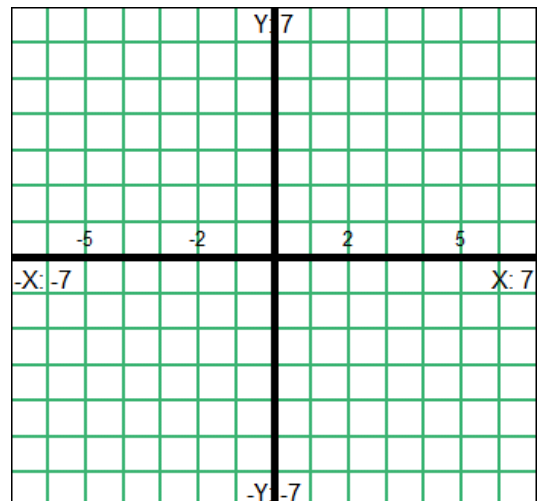
a.
$$\begin{array}{r} 245.129 \\ +73.896 \\ \hline \end{array}$$

b. $7\frac{4}{5} - 6\frac{8}{9} =$

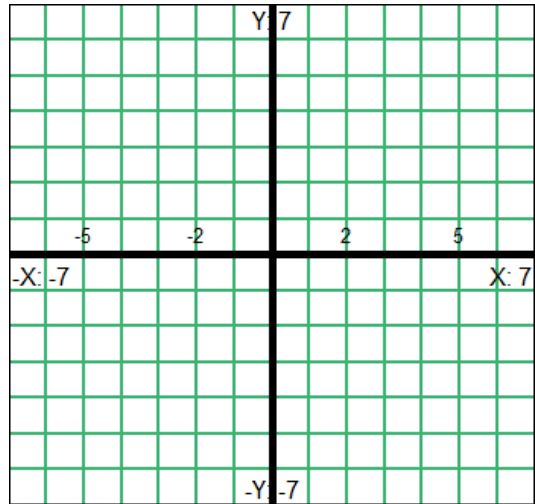
c. $3^2 + 2(11 - 6) \div 10 - 2^4(8 + 1)^2 \div 18 \times 5 \times 10^{-1} + (\sqrt{81} + 4) \times 2 =$

13. Find the value of the expression $(4.6 \times 10^4) \div (6.8 \times 10^6)$ and write the result in scientific notation. (9 points)

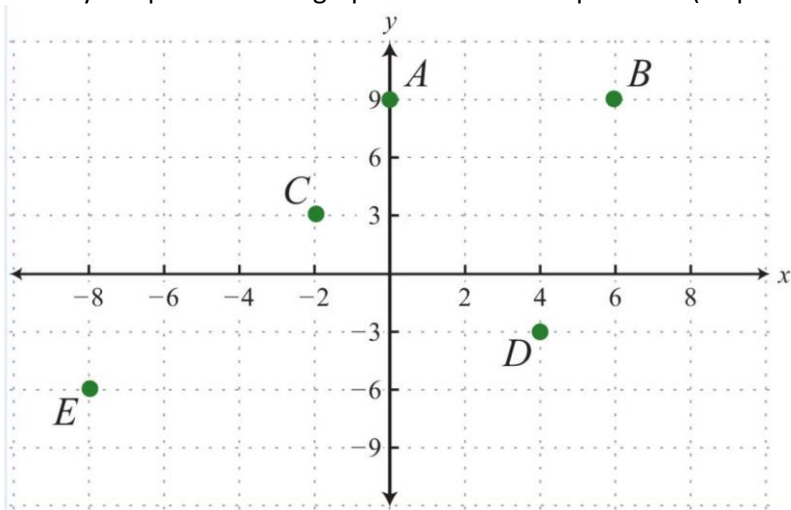
14. Graph the equation $y = |x - 1|$ on the graph on the right. Label any intercepts. Plot at least 5 points. Include values of x that are both positive and negative. (15 points)



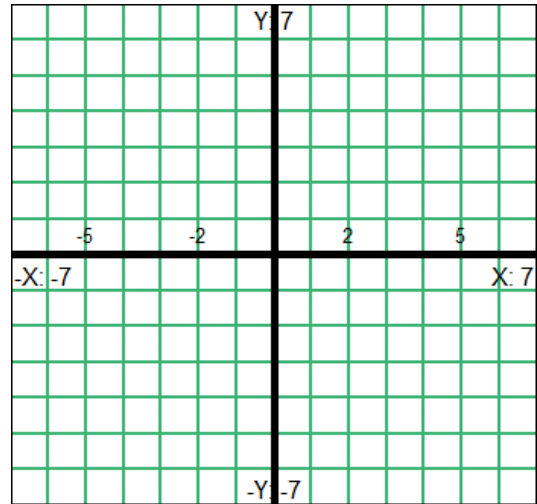
15. Graph the inequality $2x - 3y < 12$ on the graph on the right. Shade appropriately. (15 points)



16. Identify the points on the graph and label each quadrant. (20 points)



17. Graph the equation $y = -2$ on the graph on the right. Label any intercepts. (15 points)



18. Graph the inequalities on a number line. (6 points each)

a. $x \leq 7$

b. $-2 \leq x < 5$

19. Complete the table below. Convert to the other expression types. (18 points)

Percents	Decimals	Fractions
54%		
	0.03	
		$\frac{341}{725}$

20. Write the expression 2.5631×10^{-6} in standard notation. (6 points)

21. Write the number 75,414,903,000 in scientific notation. (6 points)