**Openers #2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*Each day when you come into class, there will be a problem projected for you to complete. Find the appropriate box to complete the problem in and work on it when you arrive.*

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| **Date:** **\_\_\_\_ / \_\_\_\_/ \_\_\_\_** | 2-11. Solve the equations by hand.
2. $\frac{3x+1}{5x+7}= \frac{6x+11}{10x-3}$ b. $\frac{2}{x+5}- \frac{3}{2x+1}= \frac{5}{6x+3}$ c. $2-\frac{1}{x}=1+ \frac{4}{x}$
3. Solve the equation by graphing. x(3x+4) = 5

2-21. A couple does not wish to spend more than $70 for dinner at a restaurant. If a sales tax of 6% is added to the bill and they plan to tip 15% after the tax has been added, what is the most they can spend for the meal?
2. It takes a girl 45 minutes to deliver the newspapers on her route; however, if her brother helps, it takes them only 20 minutes. How long would it take her brother to deliver the newspapers by himself?

2-3Solve: 2x2 + 5x – 12 = 0graphicallyfactoringquadratic formula completing the squareSolve by completing the square. x2 + 10x + 38 = 0 |
| **Date:** **\_\_\_\_ / \_\_\_\_/ \_\_\_\_** | 2-4Simplify. $\frac{6-3i}{2+7i}$Simplify. *i*(3+4*i*)2Find the values for x and y. 8 + (3x+y)*i* = 2x – 4*i*Solve. x2 – 5x + 20 = 02-5Solve the equation. $\sqrt{7x+2}+x=6$Solve the equation. $\left|4x-1\right|=7$Solve the equation. $\sqrt[3]{4x-5 }$ - 2 = 0 |
| **Date:** **\_\_\_\_ / \_\_\_\_/ \_\_\_\_** | 2-6Solve the inequality. |16 – 3x| ≥ 5 Express the interval as an inequality. (-3,∞)Express the inequality as an interval. -3 ≥ x > -5Solve the inequality. |4x+7| $<21$  |
| **Date:** **\_\_\_\_ / \_\_\_\_/ \_\_\_\_** | 2-71. Solve. $\frac{x-2}{x^{2}-3x-10}$ ≥ 0. 2. Solve. $\frac{x+1}{x^{2}-25}$ ≤ 0.
2. Solve by graphing. $(2-3x)(4x-7)\geq 0$
3. Solve by graphing. $\left(x-5\right)\left(x+3\right)\left(-2-x\right)<0$
4. Solve by graphing. $x^{2}-2x-8>0$
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