

Assign #7 Algebra MP1 Inequalities Real-Life REI.A.1,4 & CED.A.1

1. Container A and Container B have leaks. Container A has 800 ml of liquid and is leaking 6 ml per minute. Container B has 1000 ml of liquid and is leaking 10 ml per minute. How long will it take for the Container B to have less liquid than Container A (or how long will it take for Container A to have more liquid than Container B. Same question.)?
  - Write an algebraic INequality (MUST have a variable)
  - Solve it
  - Interpret the solution using the English language....this is tricky...
  - Graph solution set on a number line
  
2. Verizon's newest data plan is \$79.99 access fee and each gig costing \$15. Sprint charges \$92.99 access fee and each gig costing \$13. How many gigs will it take for it to be worth using Sprint?
  - Write an algebraic INequality (MUST have a variable)
  - Solve it
  - Interpret the solution using the English language....this is tricky...
  - Graph solution set on a number line
  
3. AppleMusic charges \$.99 per song to download. Or you can purchase an app that costs \$9.99, and then it only costs \$.89 to download a song. How many songs will it take before it becomes worth it to purchase the app?
  - Write an algebraic INequality (MUST have a variable)
  - Solve it
  - Interpret the solution using the English language....this is tricky...
  - Graph solution set on a number line
  
4. Jack's bucket has 200 L of water and is filling at a rate of 6 L/min. Jill's bucket has 500 L of water and is draining at a rate of 6 L/min. How long until Jack has more than Jill?
  - Write an algebraic INequality (MUST have a variable)
  - Solve it
  - Interpret the solution using the English language....this is tricky...
  - Graph solution set on a number line
  
5. FEDEX will deliver packages at a rate of \$5 for the first pound and then \$.30 for each additional pound. UPS will deliver packages at a rate of \$7 for the first pound and then \$.20 for each additional pound. When is it cheaper to use UPS?
  - Write an algebraic INequality (MUST have a variable)
  - Solve it
  - Interpret the solution using the English language....this is tricky...
  - Graph solution set on a number line

6. A 12 inch candle and an 18 inch candle are lit at 6pm. The 12 inch candle burns slowly at .5 inches every hour, but the 18 inch candle burns quicker at 2 inches every hour. At what time will the 12 inch candle be taller than the 18 inch candle? THIS ONE IS A LITTLE TRICKIER, SO PAUSE FOR THE CAUSE!!

- Write an algebraic INequality (MUST have a variable)
- Solve it
- Interpret the solution using the English language....this is tricky...
- Graph solution set on a number line