## Clock Arithmetic Task Sheet

## October 6, 2014

- 1. Turn on your computer and go to the following website: http://www.shodor.org/interactivate/activities/ClockArithmetic/
- 2. Note that you can change the clock size by scrolling the bar under the clock to the left or right. You can enter a starting time by clicking in the box that stated "Enter starting time." You can enter the number of elapsed hours in the box labeled as such. You can change the animation speed from fast to medium or slow by clicking the corresponding drop down menu.
- 3. It is 12 o'clock. What time will it be in 32 hours?

Make your clock size 12. In the box for start time, type "0". Click "Set start time." In the box labeled "Enter number of elapsed hours", put 32.

What is the calculated time?\_\_\_\_\_How many times did you pass the starting time?\_\_\_

When you have recorded the calculated time, and how many times you passed the starting time, click the button "Reset to zero."

- 5. Now, make your clock go to a 16 hour clock. Again, put 0 in for the start time and click set start time. What time is it after 32 hours? What is the calculated time? \_\_\_\_\_\_ How many times did you pass the starting time?
- 6. Reset to zero and make your clock size 18. Put in 0 for the start time. What time is it after 36 hours?What is the calculated time? How many times did you pass the starting time?
- 7. Now change your clock to size 8. Keep your start time at 0. What time is it after 2 hours? What is the calculated time?\_\_\_\_\_\_How many times did you pass the starting time?\_\_\_\_\_\_
  Reset your clock. Continuing your work with an 8 hour clock, if you start at 8:00, what time is it after 12 hours?

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What is the calculated time?\_\_\_\_\_How many times did you pass the starting time?\_\_\_\_

8. Reset to zero. Change your clock size to 12 and the starting time to 4. What time is it after 17 hours? What is the calculated time?\_\_\_\_\_\_How many times did you pass the starting time?\_\_\_\_\_\_

Reset to zero. Keep the clock size at 12. Pick your own starting time. Predict what time it will be after 25 hours. Prediction: Actual time:

Why did you predict what you did?

- 9. Reset to zero. Keep the clock size at 12. Pick your own starting time. Predict what time it will be after 200 hours. Prediction: \_\_\_\_\_\_ Actual time: \_\_\_\_\_\_
  Why did you predict what you did?
- 10. Can you think of a general way to explain to someone how to figure out what time it is given a clock size, starting time, and a number of elapsed hours? First, write out your explanation in words. Then, develop a mathematical formula.