Write an Algorithm in Pseudocode for the below Exercises

- 1. Add 5 numbers and display the Total
- 2. Tell someone how old they will be in 20 years
- 3. Compute the area of a circle
- 4. Compute the new price for a product that's on sale for 10% off
- 5. Draw a 5 inch square on the screen
- 6. Add the prices of an order of fries, a burger and a drink. Calculate the tax and tell the customer their total.
 - How would you generalize your algorithm to add up the prices of any number of items and calculate tax and a total (assume that ALL items are taxable)
- 7. Search for a red marble in a box of red, green and yellow marbles
- 8. Select the heaviest of 5 melons sitting in a fruit bin
- 9. Check someone's email every 5 minutes. Signal them if new mail has arrived
- 10. Monitor the temperature in a room every 10 minutes. Turn on the A/C if the temperature is 5 degrees above the Thermostat setting
- 11. Monitor the temperature in a room every 10 minutes. Turn on the heat if the temperature is 10 degrees above the Thermostat setting
- 12. Do either (10) or (11) depending on the temperature in the room
- 13. Mark a 10 question test and compute a grade on a 10-point scale
 - a. Convert the score to a letter grade based on the following:

i.
$$90 \text{ or } 100 = A$$

ii.
$$80 = B$$

iii.
$$70 = C$$

14. Subtract 2 numbers. If the result is positive, say "Positive"; if the result is negative, say "Negative". If the result is 0, say "Zero"