

Name _____ Period _____

Skill 18.1 Exercise 1

The SavingsAccount class below keeps track of a users name and balance. A name and a balance of at least \$100 is required to open an account.

(a) Write the SavingsAccount class below.

(b) The SavingsAccountDriver class below, must validate whether or not the account being creating has sufficient funds, and if so will create a savings account for the user. Complete the SavingsAccountDriver class

```
public class SavingsAccountDriver{

    public static void main(String args[]){

        Scanner s = new Scanner(System.in);
        System.out.println("What is your name?");
        String name = s.next();
        System.out.println("What is your initial deposit?");
        double deposit = s.nextDouble();

    }
}
```

(c) The user deposits \$50.00. Write code that will update the users balance. The user then withdraws \$20.00. Write code that will update the users balance. The user wants to check their balance. Write code that will print the users balance to the console.

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Skill 18.2 Exercise 1

The Element class below describes elements on the periodic table. Write the method numNeutrons which calculates the number of neutrons for an element, then prints the result as an int data type.

```
public class Element{

    String symbol;
    int atomicNumber;
    double mass;

    public Element(String s, int an, double m){

        symbol = s;
        atomicNumber = an;
        mass = m;
    }

}
```

The ElementMaker class creates elements by instantiating the Element class above. Write code that could be used to create the element Nitrogen, then print the number of neutrons.

```
Public class ElementMaker{
    public static void main(String args[]){

    }

}
```

Skill 18.4 Exercise 1

Modify the Element class above to allow the user to create isotopes where an isotope is the same element but with a different number of neutrons. Write a method called isotope, which accepts a parameter that represents the mass of the isotope. Your method should print to the console the number of neutrons in the isotope.

Create a new Element object called hydrogen. Print out the number of neutrons in hydrogen 2, and hydrogen 3.