




HW1 - Analysis


Problem 1

```
# write your function here
def isNegativeOdd(num):
    if (num%2 != 0) and (num<0):
        return True
    else:
        return False
```



```
# write your function here
def isNegativeOdd(number):
    if ( number%2 != 0 ) and ( number < 0 ):
        return("true")
    else:
        return("false")
```

```
def isNegativeOdd(number):  
    if number%2==1:  
        return True  
    else:  
        return False  
    if number<0.0:  
        return True  
    else:  
        return False  
num= int(input("input number:"))  
isNegativeOdd(num)
```



```
def isNegativeOdd(num):  
    if (num < 0) and (abs(num)%2 == 0):  
        return True  
#-----  
number = float(input("Please enter a negative odd number: "))  
if isNegativeOdd(number):  
    print("Good! You have entered a negative odd number")  
else:  
    print("Nice try! But the number you entered is not a negative odd number")
```

Problem 2

```
def p_triple(a,b,c):
    if (a>0) and (b>0) and (c>0):
        x = a**2
        y = b**2
        z = c**2
        if (x+y ==z)>0.0:
            return true
        else:
            return false
    else:
        return false

p_triple(a,b,c)
```

```
# write your function here
def p_triple(a,b,c):
    if (a>0) and (b>0) and (c>0):
        if a*a + b*b == c*c:
            return bool(True)
        else:
            return bool(False)
    else:
        return bool(False)
```

```
def p_triple(a,b,c):
    if(a>0 and b>0 and c>0):
        A = a**2
        B = b**2
        C = c**2
        A + B == C
        if(A+B==C)>0.0:
            return True
        else:
            return False

s1 = int(input("input a:"))
s2 = int(input("input b:"))
s3 = int(input("input c:"))
p_triple(s1,s2,s3)
```

```
def p_triple(a,b,c):
    if (a**2+b**2 == c**2) or (a**2+c**2 == b**2) or (b**2+c**2 == a**2):
        return True
# -----
side_a = int(input("Please enter the length of side a: "))
side_b = int(input("Please enter the length of side b: "))
side_c = int(input("Please enter the length of side c: "))
if (p_triple(side_a,side_b,side_c)) == True:
    print('Great! The numbers you entered do indeed form a',
          'Pythagorean triplet.')
else:
    print('Sorry! Unfortunately, the numbers you entered do',
          'not form a Pythagorean Triplet.')
```


Problem 3

```
def round_to_int(x):  
    num = float(input("input x:"))  
    round(num)  
    return round(num)  
round_to_int(-2.5)
```

```
def round_to_int(x):  
    return round(x)  
# -----  
num = float(input('please input any real number: '))  
print(round_to_int(num))
```

```
# write your function here
def round_to_int(x):
    x="%.1f"%x
    NumberList=x.split(".")
    IntPart=int(NumberList[0])
    DecPart=int(NumberList[1])
    if DecPart > 5:
        if IntPart >= 0:
            Result = IntPart + 1
        else:
            Result = IntPart - 1
        return(Result)
    elif DecPart == 5:
        Result1 = IntPart
        if IntPart >= 0:
            Result2 = IntPart + 1
        else:
            Result2 = IntPart - 1
        return(Result1,"or",Result2)
    else:
        return(IntPart)
```