Task 1:

```
function [ ] = check_month(month)
    switch month
        case {1,3,5,7,8,10,12}
            fprintf("31\n");
        case {4,6,9,11}
            fprintf("30\n");
        case {2}
            fprintf("28 or 29\n");
        otherwise
            fprintf("you're dumb\n");
    end
end
```

Task 2:

```
function [] = PhuongTrinhBac2(a,b,c)
    if(a==0 && b==0 && c==0)
        fprintf("Infinite solution\n");
    end
    delta = b^2 -4*a*c;
    if(delta < 0)
        fprintf("No solution\n");
    elseif (delta == 0)
        fprintf ("x1=x2=%.2f\n", (-b-sqrt(delta)/(2*a)));
    elseif (delta > 0)
        fprintf ("x1=%.2f, x2=%.2f\n",(-b-sqrt(delta)/(2*a)),(-b+sqrt(delta)/(2*a)))
    end
end
```

Task 3:

```
function [] = CalSum(n)
    tong = 0;
    for i=0:2:n
        tong = tong +i;
    end
    fprintf("%d\n",tong);
end
```

Task 4:

```
function [] = EnterPrime()
    n = input("Enter a value");
    matrix = [];

    for i = 1:n
            matrix(i) = input(['Enter the value of a[' num2str(i) ']: ']);
    end

    for i = 1:n
            if(CheckPrime(matrix(i)) && matrix(i)>2)
                fprintf("%d ",matrix(i))
            end
    end
end

function [result] = CheckPrime(n)
    result = 1;
    for i = 2: sqrt(n)
        if(mod(n, i) == 0)
            result = 0;
        end
    end
end
```

Task 5:

```
  function [Pi,step] = CalPI(EPS)
      for i= 1:3
          a = 1;
          b = 1/sqrt(2);
          t = 1/4;
          x = 1;
          step = 0;

          error= abs(a-b);
          while error>= EPS
              y=a;
              a=(a+b)/2;
              b=sqrt(b*y);
              t=t-x*(y-a)^2;
              x=2*x;
              error=abs(a-b);
              step = step+1;
          end
          Pi = ((a+b)^2)/(4*t);
      end
  end
```

```
function [] = EnterEPS()
    EPS=[];
    Pi=[];
    step = [];
    for i = 1:3
        EPS(i) = input(['Enter the value of EPS[',num2str(i),']']);
    end
    for i = 1:3
        [Pi(i),step(i)] = CalPI(EPS(i));
    end
        fprintf("EPS:%.4f\t%.4f\t%.4f\n ",EPS(1),EPS(2),EPS(3));
        fprintf("Pi:%.4f\t%.4f\t%.4f\n ",Pi(1),Pi(2),Pi(3));
        fprintf("step:%d\t%d\t%d\n ",step(1),step(2),step(3));
        fprintf("\n");
end
```