Q1.

```c
/*
1. Enter a number and check whether the number is a
Prime number
or not a Prime number.
*/

#include <stdio.h>

int main(){
    int n, count=0;
    printf("Enter a number : ");
    scanf("%d", &n);
    for (int i = 2; i <= n; i++)
    {
        if(n%i==0){
            count++;
        }
    }

    if(count==1){
        printf("Yes, prime.");
    }
    else{
        printf("No, not a prime.");
    }

    return 0;
}
```

Q2.

```c
/*
2. Enter a number and check whether the number is an Armstrong
number or not an Armstrong number.
*/

#include <stdio.h>
#include <math.h>

int main(){

    int n1, n2, sumValue=0, noDigits = 0;

    printf("Enter a number : ");
    scanf("%d", &n1);

    n2 = n1;

    while (n2!=0)
    {
        noDigits++;
        n2 = n2/10;
    }

    n2 = n1;

    while (n2!=0)
    {
        sumValue += powf(n2%10, noDigits);
        n2 = n2/10;
    }

    if(sumValue == n1){
        printf("Entered number is armstrong.");
    }
    else{
        printf("Entered number is not armstrong.");
    }

    return 0;
}
```

Q3.

```c
/*

3. Enter a number and check whether the number is an Ugly-Prime
number or not an Ugly-Prime number.

Description: - The given number is ugly prime number if its prime
factor contains only among 2, 3 or 5.

*/


#include <stdio.h>

int main(){
    int n;
    printf("Enter a number : ");
    scanf("%d", &n);
    if(n==1 | n%2==0 | n%3==0 | n%5==0){
        printf("The number is ugly-prime.");
    }
    else{
        printf("The number is not ugly-prime.");
    }
    return 0;
}
```

Q4.

```c
/*

4. Determine the most economical quantity to be stocked for each
product that a manufacturing company has in its inventory: This
quantity called economic order quantity (EOQ) is calculated as
follows: EOQ=2RS/I, where R= Total yearly production
requirement, S= set up cost per order , I= inventory carrying cost
per unit.

*/

#include <stdio.h>

int main(){
    float EOQ, R, S, I;
    printf("Total yearly production requirement (R) = ");
    scanf("%f", &R);
    printf("Set-up cost per order (S) = ");
    scanf("%f", &S);
    printf("Inventory carrying cost per unit (I) = ");
    scanf("%f", &I);
```

```
    EOQ = (2*R*S)/I;
    printf("\nEconomic Order Quantity = %f", EOQ);
    return 0;
}
```

Q5.

```
/*
5. Find the largest number among three numbers.
*/


#include <stdio.h>

int main(){
    int n1, n2, n3, max;
    printf("Enter three numbers : ");
    scanf("%d %d %d", &n1, &n2, &n3);

    max = n1;
    if(n2>max){
        max=n2;
    }
    else if(n3>max){
        max=n3;
    }

    printf("\nLargest number among three is : %d", max);
    return 0;
}
```