Answers

1.Sum Of the limit:

```
int Main
{
        int input;
        printf ("Enter the limit:");
        scanf(“%d”,input);
        int sum=0;
        for(int i=0;i<input;i++){
           if(i%5==0||i%3==0){
              sum=sum+i;
           }
        }
        printf ("The Sum of the limit is: %d"+sum);
    }
}
```

2.Fibonacci Series:

```
 #include<stdio.h>
                    int main(void)
                    {
                     int a1 = 1, a2 = 1, a3 = 2, sum = 0;

                      while (a3 < 4000000) {
                        a3 = a1 + a2;
                        sum += a3 * !(a3%2);
                        a1 = a2;
                        a2 = a3;
```

```
    }

    printf("%u\n", sum);

    return 0;
  }
```

3. the difference between the sum of the squares

```
#include <stdio.h>


int main(void)
{
  unsigned s1 = 0, s2 = 0, i;


  for (i = 1; i <= 100; i++) {
    s1 += i*i;
    s2 += i;
  }
  printf("%u\n", s2*s2 - s1);
  return 0;
}
```

4. Pythagorean triplet:

```
#include<stdio.h>

int main(void)
{
  int a, b;

  for (a = 1; a <= 333; a++) {
    for (b = a; b <= 666; b++) {
      int c = (1000 - a - b);
      if (a*a + b*b == c*c) {
```

```
        printf("%d\n", a * b * c);
      }
    }
  }
  return 0;
}
```

5.Prime Factors:

```
#include<stdio.h>

int main(void)
{
  unsigned long long n = 600851475143ULL;
  unsigned long long i;

  for (i = 2ULL; i < n; i++) {
    while (n % i == 0) {
      n /= i;
    }
  }
  printf("%llu\n", n);

  return 0;
}
```