

a.

main.c	Output
<pre> 1 #include <stdio.h> 2 int main() 3 { 4 int i, j, n=5, fact, sign = - 1; 5 float x, p, sum = 0; 6 float radianx=0; 7 printf("Enter the value of x : "); 8 scanf("%f", &x); 9 radianx = x*3.14159/180.0; 10 for (i = 1; i <= n; i++) 11 { 12 p = 1; 13 fact = 1; 14 for (j = 1; j <= i; j++) 15 { 16 fact = fact * j; 17 } </pre>	<pre> /tmp/QIg9xfenvt.o Enter the value of x : -5 sin -5.000000 = -0.09 </pre>

Inference- It works well for negative integers and decimals also.

b.

main.c	Output
<pre> 1 #include <stdio.h> 2 int main() { 3 int array[5]; 4 int i, first=0, second=0; 5 6 for(i = 0; i < 5; i++) 7 { 8 scanf("%d", &array[i]); 9 10 printf ("enter value of any number: %d \n", array[i]); 11 } 12 //first = array[0]; 13 for(i = 0; i < 5; i++) 14 { 15 if(first < array[i]) 16 { 17 second = first; 18 first = array[i]; 19 } </pre>	<pre> /tmp/QIg9xfenvt.o 5 enter value of any number: 5 8 enter value of any number: 8 9 enter value of any number: 9 14 enter value of any number: 14 80 enter value of any number: 80 Second largest number is: 14 </pre>

Inference- It doesn't work for negative integers and decimals.

C.

main.c	Output
<pre>1 #include <stdio.h> 2 int main() { 3 int n, rev = 0, remainder; 4 printf("Enter an integer: "); 5 scanf("%d", &n); 6 7 while (n != 0) 8 { 9 remainder = n % 10; 10 rev = rev * 10 + remainder; 11 n /= 10; 12 } 13 printf("Reversed number = %d", rev); 14 return 0; 15 }</pre>	<pre>/tmp/syRhEiNmPx.o Enter an integer: 3456 Reversed number = 6543</pre>

Inference- The programs codes for reversing the digits of the given number. Works well for negative integers and numbers having first digit as zero also like -9805 and 0567 respectively.

d.

main.c	Output
<pre>1 #include <stdio.h> 2 int main() 3 { 4 int num, i, flag = 0; 5 printf("Enter any 4 digit number: "); 6 scanf("%d", &num); 7 if ((num < 1000) (num > 9999)) 8 { 9 printf("< %d > is not a 4 digit number", num); 10 return 0; 11 } 12 int array[4] = {2,3,4,12}; 13 for (i=0; i<4; i++) 14 { 15 if (num % array[i] == 0) 16 { 17 printf("< %d > is seed number\n", array[i]); 18 flag = 1; 19 } 20 }</pre>	<pre>/tmp/H4AyAkEMk2.o Enter any 4 digit number: 6450 < 2 > is seed number < 3 > is seed number</pre>

Inference- it doesn't work for numbers not having 4 digits. It won't work for decimals also.

