

حل سوال ۴-۱:

```
#include <iostream>
#include <conio.h>
using namespace std;
main()
{
    int a,i;
    cout <<"number:";
    cin>>a;
    for (i=1;i<=a;i++)
    {
        if (i%5==0)
            cout<<"hop"<<endl;
        else
            cout<<i<<endl;1-
    }
    getch();
}
```

حل سوال ۴-۲:

```
#include <iostream>
#include <conio.h>
using namespace std;
```

```
main()
{
    int a,b,i;
    cout <<"2 numbers:";
    cin>>a>>b;
    if(a>b)
    {
        a=a+b;
        b=a-b;
        a=a-b;
    }
    for (i=a+1;i<b;i++)
    {
        if (i%2==0)
            cout<<i<<endl;
    }
    getch();
}
```

حل سوال ۳-۴:

حل سوال ۴-۴:

```
#include <iostream>
```

```
#include <graphics.h>

using namespace std;

main()
{
    initwindow(800,600);

    int c,x1,x2,y1,y2;

    for (int i=0;i<16;i++)
    {
        c=i%15+1;

        x1=i*50;

        y1=0;

        x2=i*50+50;

        y2=600;

        setfillstyle(1,c);

        bar(x1,y1,x2,y2);

    }

    getch();
}
```

حل سوال ٤ - ٥ :

```
#include <iostream>

#include <graphics.h>

using namespace std;
```

```
main()
{
    int x1=0,y1=0,x2=600,y2=0,x3=600,y3=600,x4=0,y4=600,xt,yt,n,i;
    cout<< "Enter n:";
    cin >> n;
    initwindow(600,600);
    for (i=1;i<=n;i++)
    {
        line(x1,y1,x2,y2);
        line(x2,y2,x3,y3);
        line(x3,y3,x4,y4);
        line(x4,y4,x1,y1);
        xt=x1;
        yt=y1;
        x1=(x1+x2)/2;
        y1=(y1+y2)/2;
        x2=(x2+x3)/2;
        y2=(y2+y3)/2;
        x3=(x3+x4)/2;
        y3=(y3+y4)/2;
        x4=(x4+xt)/2;
        y4=(y4+yt)/2;
    }
}
```

```
}  
    getch();  
}
```

حل سوال ۴-۶:

```
#include <iostream>  
#include <graphics.h>  
using namespace std;  
main()  
{  
    initwindow(600,600);  
    setcolor(4);  
    line (0,300,600,300);  
    line (300,0,300,600);  
    setcolor(2);  
    for(int i=1;i<30;i++)  
    {  
        line(300, i*10 ,300+i*10,300);  
        line(300, i*10 ,300-i*10,300);  
        line(300,600-i*10,300+i*10,300);  
        line(300,600-i*10,300-i*10,300);  
        delay(100); //Darsurati ke mikhahid animation nabashad, in khat ra hazf  
        konid!
```

```
}  
    getch();  
}
```

حل سوال ٧-٤:

```
#include <iostream>  
#include <graphics.h>  
using namespace std;  
main()  
{  
    int x = 400 , y=300 , l=10,n;  
    cin>>n;  
    initwindow(800,600);  
    for(int i=1;i<=n;i++)  
    {  
        if(i%4 == 1)  
        {  
            line(x,y,x,y+l);  
            y += l;  
        }  
        else if(i%4 == 2)  
        {  
            line(x,y,x+l,y);
```

```

    x += l;
    l +=10;
}
else if(i%4 == 3)
{
    line(x,y,x,y-l);
    y -= l;
}
else if(i%4 == 0)
{
    line(x,y,x-l,y);
    x -= l;
    l+=10;
}
}

    getch();
}

```

حل سوال ۴ - ۸:

```

#include <iostream>
#include <graphics.h>
using namespace std;

```

```
main()
{
    initwindow(800,600);
    for(int i=0;i<10;i++)
        circle(400,300,20*i);
    getch();
    closegraph();
}
```