

Soluzioni 28-01-2010

1)

```
void f(unsigned n, unsigned i=0)
{ if (i<n/2)
  {   for (int j=0; j<n/2-i; j++) cout << ' ';
      cout << "*" << endl;
  }
  else
  {   for (int j=0; j<i-n/2; j++) cout << ' ';
      cout << "*" << endl;
  }
  if (i<n-1) f(n,i+1);
}
```

2)

```
bool verifica(elem* l, int inf)
{ elem* q;
  for (q = l; q != 0 && q->info != inf; q = q->pun);
  if (q==0) return false;
  return true;
}

elem* funz(elem* l1, elem* l2)
{ elem* l3=0, * r, * t, * q;
  for (elem* p=l1; p!=0; p=p->pun)
    if (verifica(l2,p->info))
    {
      t=new elem;
      t->info=p->info;
      for (q = l3; q != 0 && q->info < p->info; q = q->pun)
        r=q;
      t->pun=q;
      if (q==l3) l3=t;
      else r->pun=t;
    }
  return l3;
}
```

3)

```
int* funz(int* mat1,int* mat2, int r, int c)
{ if (r<=0 || c<=0) return 0;
  int* v= new int[r];
  for (int i=0; i<r; i++)
  {   v[i]=0;
      for (int j=0; j<c; j++)
        if (mat1[i*c+j]==mat2[i*c+j])
        {
          v[i]=1;
          break;
        }
    }
  return v;
}
```

4)

$(B6D)_{16} \rightarrow (5555)_8$
 $(-24) \rightarrow (11101000)_{\text{compl2}}$

5)

nuovo A k=4
nuovo B k=0
nuovo C k=2
C:f(), k=2
C:f(), k=2
nuovo A k=4
nuovo B k=0
A::f(), k=4
B::f(), k=0
via B
via A
via C
via B
via A

6)

3.6
4
3.3
6