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int main()
{
    LIST l;
    KhoiTao(l);
    NhapDS(l);
    cout << "\n\n\t DANH SACH PHAN TU: ";
    XuatDanhSach(l);
    cout << "\n\n\t GIA TRI LON NHAT: " << TimMax(l);
    cout << "\n\n\t TRUNG BINH CONG: " << Tinh_TBC(l)<<endl;
    cout << "\n\t SO LUONG PHAN TU: " << DemSoLuong(l)<<endl;
    if(Kiemtra_Tang(l)){
        cout<<"\n\t DAY TANG !!"<<endl;
    }
    else    cout<<"\n\t DAY KHONG TANG!!"<<endl;
    int y,x;
    cout<<"\nNhap gia tri y muon chen: ";
    cin>>y;
    cout << "\nNhap gia tri x de them y vao sau: ";
    cin >> x;
    ThemGiatри_y_VaoSauCacGiatри_x(l,x,y);
    XuatDanhSach(l);
    return 0;
}

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void ThemVaoCuoi(LIST &L, NODE *p)
{
    if (L.pHead == NULL)
    {
        L.pHead = L.pTail = p;
    }
    else
    {
        L.pTail->pNext = p;
        L.pTail = p;
    }
}

void NhapDS(LIST &L){
    for (int i = 1;; i++)
    {
        int x;
        cout << "\nNhap x"<<i<<": ";
        cin >> x;
        NODE *p = KhoiTaoNODE(x);
        ThemVaoCuoi(L, p);
        if(x==0) break;
    }
}

```

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void XuatDanhSach(LIST L)
{
    for (NODE *k = L.pHead; k != NULL; k = k->pNext)
    {
        cout << k->data << " ";
    }
}

```

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int DemSoLuong(LIST l){
    int Dem=0;
    for(NODE *k = l.pHead;k != NULL;k=k->pNext)
    {
        Dem++;
    }
    return Dem;
}
```

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int TimMax(LIST l)
{
    int max = l.pHead->data;
    NODE *h;
    for (NODE *k = l.pHead->pNext; k != NULL; k = k ->pNext)
    {
        if (max < k->data)
        {
            max = k->data;
        }
    }
    return max;
}
```

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float Tinh_TBC(LIST l)
{
    int Tong=l.pHead->data;
    int n=1;
    float TBC;
    for(NODE *k=l.pHead->pNext; k!=NULL; k=k->pNext)
    {
        Tong= Tong+k->data;
        n++;
    }
    TBC= float(Tong/n);
    return TBC;
}

```

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//Kiểm tra danh sách tăng dần
bool Kiemtra_Tang(LIST l){
    for(NODE *k = l.pHead;k->pNext != NULL;k=k->pNext)
    {
        if(k->data > k->pNext->data){
            return false;
        }
    }
    return true;
}

```

```

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void ThemGiatри_y_VaoSauCacGiatри_x(LIST &L, int x, int y)
{
    NODE *p = KhoiTaoNODE(y);
    NODE *q = KhoiTaoNODE(x);
    if (q->data == L.pHead->data && L.pHead->pNext == NULL)
    {
        ThemVaoCuoi(L, p);
    }
    else
    {
        for (NODE *k = L.pHead; k != NULL; k = k->pNext)
        {
            if (q->data == k->data)
            {
                NODE *h = KhoiTaoNODE(p->data);
                NODE *g = k->pNext;
                h->pNext = g;
                k->pNext = h;
            }
        }
    }
}

```