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#include <iostream>
using namespace std;

int a1[12], a2[12], a3[12], a4[12];
int used1, used2, used3, used4, minInt, intNum, oneInt;
int* hopPtr;
int* hopPtr1;
int* hopPtr2;
int* hopPtr3;
int* hopPtr4;
int* endPtr;
int* endPtr1;
int* endPtr2;
int* iPtr;
char reply;
char begA1Str[] = "beginning a1: ";
char cpaA1Str[] = "chkPointA a1: ";
char proA1Str[] = "processed a1: ";
char comAeStr[] = "          a";
char comAfStr[] = ": ";
char einStr[] = "Enter integer #";
char moStr[] = "Max of ";
char ieStr[] = " ints entered...";
char eaiStr[] = "End adding ints? (y or Y = yes, others = no) ";
char dacStr[] = "Do another case? (n or N = no, others = yes) ";
char dlStr[] = "===== ";
char byeStr[] = "bye...";

int main()
{
    //do
    {
        begDW1://
        {
            intNum = 0;
            used1 = 0;
            used2 = 0;
            hopPtr1 = a1;
            hopPtr2 = a2;
            cout << eaiStr;
            cin >> reply;
            //while (reply != 'y' && reply != 'Y')
            goto WTest1;
        }
        begW1://
        {
            ++intNum;
            cout << einStr;
            cout << intNum;
            cout << ':' << ' ';
            cin >> oneInt;
            //if ( (intNum & 1) != 0 )
            if ((intNum & 1) == 0) goto else1;
        }
        begI1://
        {
            *hopPtr1 = oneInt;
            ++hopPtr1;
            ++used1;
            goto endI1;
        }
        //
        else1://
        //
        {
            *hopPtr2 = oneInt;
            ++hopPtr2;
            ++used2;
        }
        endI1://
        //if (intNum == 12)
        if (intNum != 12) goto else2;
        begI2://
        {

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        cout << moStr;
        cout << 12;
        cout << ieStr;
        cout << endl;
        reply = 'y';
        goto endI2;
//      }
else2://    else
//      {
        cout << eaiStr;
        cin >> reply;
    }
endI2://
WTest1:    if (reply != 'y' && reply != 'Y') goto begW1;
endW1://  }
        cout << endl;

        cout << begA1Str;
        hopPtr = a1;
        endPtr = hopPtr + used1;
        //while (hopPtr < endPtr)
        goto WTest2;
begW2://  {
        cout << *hopPtr << ' ' << ' ';
        ++hopPtr;
WTest2:    if (hopPtr < endPtr) goto begW2;
endW2://  }
        cout << endl;

        cout << comAeStr << 2 << comAfStr;
        hopPtr = a2;
        endPtr = hopPtr + used2;
        //while (hopPtr < endPtr)
        goto WTest3;
begW3://  {
        cout << *hopPtr << ' ' << ' ';
        ++hopPtr;
WTest3:    if (hopPtr < endPtr) goto begW3;
endW3://  }
        cout << endl;

        //if (used1 > 0 || used2 > 0)
        if (used1 <= 0 && used2 <= 0) goto else3;
begI3://  {
        hopPtr1 = a1;
        hopPtr2 = a2;
        hopPtr3 = a3;
        hopPtr4 = a4;
        endPtr1 = hopPtr1 + used1;
        endPtr2 = hopPtr2 + used2;
        used3 = 0;
        used4 = 0;
        //if (used1 > 0)
        if (used1 <= 0) goto else4;
begI4://  {
        minInt = *hopPtr1;
        goto endI4;
//      }
else4://    else
//      {
        minInt = *hopPtr2;
    }
endI4://  }
        //while (hopPtr1 < endPtr1 && hopPtr2 < endPtr2)
        goto WTest4;
begW4://  {
        //while (hopPtr1 < endPtr1)

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goto WTest5;
begW5://
{
    oneInt = *hopPtr1;
    //if (oneInt < minInt)
    if (oneInt > minInt) goto endI5;
begI5://
    {
        minInt = oneInt;
endI5://
    }
    //if ( (oneInt & 1) == 0 ) break;
    if ((oneInt & 1) != 0) goto endI6;
begI6://
    {
        goto endW5;
endI6://
    }
    *hopPtr3 = oneInt;
    ++used3;
    ++hopPtr1;
    ++hopPtr3;
WTest5:
    if (hopPtr1 < endPtr1) goto begW5;
endW5://
}
//while (hopPtr2 < endPtr2)
goto WTest6;
begW6://
{
    oneInt = *hopPtr2;
    //if (oneInt < minInt)
    if (oneInt >= minInt) goto endI7;
begI7://
    {
        minInt = oneInt;
endI7://
    }
    //if ( (oneInt & 1) != 0 ) break;
    if ((oneInt & 1) == 0) goto endI8;
begI8://
    {
        goto endW6;
endI8://
    }
    *hopPtr4 = oneInt;
    ++used4;
    ++hopPtr2;
    ++hopPtr4;
WTest6:
    if(hopPtr2 < endPtr2) goto begW6;
endW6://
}
//if (hopPtr1 < endPtr1 && hopPtr2 < endPtr2)
if (hopPtr1 >= endPtr1 || hopPtr2 >= endPtr2) goto endI9;
begI9://
{
    *hopPtr3 = *hopPtr2;
    *hopPtr4 = *hopPtr1;
    ++used3;
    ++used4;
    ++hopPtr1;
    ++hopPtr2;
    ++hopPtr3;
    ++hopPtr4;
endI9://
}
WTest4:
    if (hopPtr1 < endPtr1 && hopPtr2 < endPtr2) goto begW4;
endW4://
}
//while (hopPtr1 < endPtr1)
goto WTest7;
begW7://
{
    oneInt = *hopPtr1;
    //if (oneInt < minInt)
    if (oneInt >= minInt) goto endI10;
begI10://
    {
        minInt = oneInt;
endI10://
    }
    //if ( (oneInt & 1) != 0 )
    if ((oneInt & 1) == 0) goto else11;
begI11://
    {

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        *hopPtr3 = oneInt;
        ++used3;
        ++hopPtr3;
        goto endI11;
//      }
else11://      else
//      {
        *hopPtr4 = oneInt;
        ++used4;
        ++hopPtr4;
endI11://      }
        ++hopPtr1;
WTest7:      if(hopPtr1 < endPtr1) goto begW7;
endW7://      }
        //while (hopPtr2 < endPtr2)
        goto WTest8;
begW8://      {
        oneInt = *hopPtr2;
        //if (oneInt < minInt)
        if (oneInt < minInt) goto endI12;
begI12://      {
        minInt = oneInt;
endI12://      }
        //if ( (oneInt & 1) != 0 )
        if ((oneInt & 1) == 0) goto else13;
begI13://      {
        *hopPtr3 = oneInt;
        ++used3;
        ++hopPtr3;
        goto endI13;
//      }
else13://      else
//      {
        *hopPtr4 = oneInt;
        ++used4;
        ++hopPtr4;
endI13://      }
        ++hopPtr2;
WTest8:      if(hopPtr2 < endPtr2) goto begW8;
endW8://      }
        goto endI3;
//      }
else3://      else
//      {
        used3 = 0;
        used4 = 0;
endI3://      }

        cout << comAeStr << 3 << comAfStr;
        hopPtr = a3;
        endPtr = hopPtr + used3;
        //while (hopPtr < endPtr)
        goto WTest9;
begW9://      {
        cout << *hopPtr << ' ' << ' ';
        ++hopPtr;
WTest9:      if (hopPtr < endPtr) goto begW9;
endW9://      }
        cout << endl;

        cout << comAeStr << 4 << comAfStr;
        hopPtr = a4;
        endPtr = hopPtr + used4;
        //while (hopPtr < endPtr)
        goto WTest10;

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begW10://      {
                cout << *hopPtr << ' ' << ' ';
                ++hopPtr;
WTest10:      if(hopPtr < endPtr) goto begW10;
endW10://      }
                cout << endl;

                //if (used1 > 0 || used2 > 0)
                if (used1 <= 0 && used2 <= 0) goto endI14;
begI14://      {
                used1 = 0;
                used2 = 0;
                hopPtr = a3;
                endPtr = hopPtr + used3;
                //while (hopPtr < endPtr)
                goto WTest11;
begW11://      {
                oneInt = *hopPtr;
                //for (iPtr = a1 + used1; iPtr > a1; --iPtr)
                iPtr = a1 + used1;
                goto FTest1;
begF1://      {
                //if ( *(iPtr - 1) <= oneInt ) break;
                if ( *(iPtr - 1) > oneInt ) goto endI15;
begI15://      {
                goto endF1;
endI15://      }
                *iPtr = *(iPtr - 1);
                --iPtr;
FTest1:      if (iPtr > a1) goto begF1;
endF1://      }
                *iPtr = *hopPtr;
                ++used1;
                ++hopPtr;
WTest11:    if (hopPtr < endPtr) goto begW11;
endW11://    }
                hopPtr = a4;
                endPtr = hopPtr + used4;
                //while (hopPtr < endPtr)
                goto WTest12;
begW12://    {
                oneInt = *hopPtr;
                //for (iPtr = a2 + used2; iPtr > a2; --iPtr)
                iPtr = a2 + used2;
                goto FTest2;
begF2://    {
                //if ( *(iPtr - 1) <= oneInt ) break;
                if ( *(iPtr - 1) <= oneInt ) goto endF2;
                *iPtr = *(iPtr - 1);
                --iPtr;
FTest2:    if (iPtr > a2) goto begF2;
endF2://    }
                *iPtr = *hopPtr;
                ++used2;
                ++hopPtr;
WTest12:    if (hopPtr < endPtr) goto begW12;
endW12://    }

                cout << cpaA1Str;
                hopPtr = a1;
                endPtr = hopPtr + used1;

                //while (0 == 0)
                goto WTest13;
begW13://    {

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//if (hopPtr == a4 + used4 && endPtr == a4 + used4) break;
if (hopPtr != a4 + used4 || endPtr != a4 + used4) goto endI17;
begI17://
{
    goto endW13;
endI17://
}
//while (hopPtr < endPtr)
goto WTest14;
begW14://
{
    cout << *hopPtr << ' ' << ' ';
    ++hopPtr;
WTest14:
if (hopPtr < endPtr) goto begW14;
}
cout << endl;
//if (endPtr == a1 + used1)
if (endPtr != a1 + used1) goto else18;
begI18://
{
    cout << comAeStr << 2 << comAfStr;
    hopPtr = a2;
    endPtr = hopPtr + used2;
    goto endI18;
//
}
else18://
else
{
    //if (endPtr == a2 + used2)
    if (endPtr != a2 + used2) goto else19;
begI19://
    {
        cout << comAeStr << 3 << comAfStr;
        hopPtr = a3;
        endPtr = hopPtr + used3;
        goto endI19;
//
    }
else19://
else
{
    //if (endPtr == a3 + used3)
    if (endPtr != a3 + used3) goto endI20;
begI20://
    {
        cout << comAeStr << 4 << comAfStr;
        //if (used4 == 0)
        if (used4 != 0) goto endI21;
begI21://
        {
            cout << endl;
endI21://
        }
        hopPtr = a4;
        endPtr = hopPtr + used4;
endI20://
    }
endI19://
}
endI18://
}
WTest13:
if (0 == 0) goto begW13;
endW13://
}

used3 = 0;
used4 = 0;
//if ( (minInt & 1) != 0)
if ((minInt & 1) == 0) goto else22;
begI22://
{
    hopPtr = a3;
    used3 = used1 + used2;
    goto endI22;
//
}
else22://
else
{
    hopPtr = a4;
    used4 = used1 + used2;
endI22://
}
hopPtr1 = a1;

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        hopPtr2 = a2;
        endPtr1 = hopPtr1 + used1;
        endPtr2 = hopPtr2 + used2;
        //while (hopPtr1 < endPtr1 && hopPtr2 < endPtr2)
        goto WTest15;
begW15://    {
//        //if (*hopPtr1 < *hopPtr2)
//        if (*hopPtr1 >= *hopPtr2) goto else23;
begI23://        {
//            *hopPtr = *hopPtr1;
//            ++hopPtr1;
//            goto endI23;
//        }
//        else
//        {
//            *hopPtr = *hopPtr2;
//            ++hopPtr2;
//        }
//        ++hopPtr;
WTest15:    if (hopPtr1 < endPtr1 && hopPtr2 < endPtr2) goto begW15;
endW15://    }
//        //while (hopPtr1 < endPtr1)
//        goto WTest16;
begW16://    {
//        *hopPtr = *hopPtr1;
//        ++hopPtr1;
//        ++hopPtr;
WTest16:    if (hopPtr1 < endPtr1) goto begW16;
endW16://    }
//        //while (hopPtr2 < endPtr2)
//        goto WTest17;
begW17://    {
//        *hopPtr = *hopPtr2;
//        ++hopPtr2;
//        ++hopPtr;
WTest17:    if (hopPtr2 < endPtr2) goto begW17;
endW17://    }
endI14://    }

    cout << proA1Str;
    hopPtr = a1;
    endPtr = hopPtr + used1;

    //while (0 == 0)
    goto WTest18;
begW18://    {
//        //if (hopPtr == a4 + used4 && endPtr == a4 + used4) break;
//        if (hopPtr != a4 + used4 || endPtr != a4 + used4) goto endI24;
begI24://        {
//            goto endW18;
//        }
//        //while (hopPtr < endPtr)
//        goto WTest19;
begW19://    {
//        cout << *hopPtr << ' ' << ' ';
//        ++hopPtr;
WTest19:    if (hopPtr < endPtr) goto begW19;
endW19://    }
//        cout << endl;
//        //if (endPtr == a1 + used1)
//        if (endPtr != a1 + used1) goto else25;
begI25://        {
//            cout << comAeStr << 2 << comAfStr;
//            hopPtr = a2;
//            endPtr = hopPtr + used2;

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        goto endI25;
//      }
else25://    else
//      {
//if (endPtr == a2 + used2)
if (endPtr != a2 + used2) goto else26;
begI26://    {
        cout << comAeStr << 3 << comAfStr;
        hopPtr = a3;
        endPtr = hopPtr + used3;
        goto endI26;
//      }
else26://    else
//      {
//if (endPtr == a3 + used3)
if (endPtr != a3 + used3) goto endI27;
begI27://    {
        cout << comAeStr << 4 << comAfStr;
//if (used4 == 0)
if (used4 != 0) goto endI28;
begI28://    {
        cout << endl;
endI28://    }
        hopPtr = a4;
        endPtr = hopPtr + used4;
endI27://    }
endI26://  }
endI25://  }
WTest18:  if (0 == 0) goto begW18;
endW18:// }

        cout << endl;
        cout << dacStr;
        cin >> reply;
        cout << endl;
endDW1:// }
DWTest1: //while (reply != 'n' && reply != 'N');
if (reply != 'n' && reply != 'N') goto begDW1;
cout << dlStr;
cout << '\n';
cout << byeStr;
cout << '\n';
cout << dlStr;
cout << '\n';

return 0;
}

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