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{1992 ACM Mid-Central Regional Programming Contest
 Sample Solution to Problem #4 - Cribbage Scores}

program Crib;
const
    Cards = 'A23456789TJQK';
    Suits = 'DHSC';
    Multiples : Array[0..4] of integer = (0,0,2,6,12);
    Flush:Array[0..5] of integer = (0,0,0,0,4,5);
    Value:Array[0..12] of integer=(10,1,2,3,4,5,6,7,8,9,10,10,10);
var
    Deck : Array [1..5] of integer;
    Each : Array [1..15] of integer;
    EachSuit : Array[1..4] of integer;
    Points:integer;
    Total : integer;
    ifile,ofile: text;



procedure Init_Hand;
var
  i:integer;
begin
    for i:=1 to 15 do
    begin
        if i<5 then
           EachSuit[i]:=0;
        Each[i]:=0;
    end;
    Points:=0;
    Total:=0;
end;

procedure Read_Hand;
var
   C1,C2 : char;
   i:integer;
begin
    for i:=1 to 5 do
    begin
        Read(ifile,C1);
        Read(ifile,C2);
        Deck[i]:=Pos(C1,Cards)+13*Pos(C2,Suits)-13;
        Inc(Each[Pos(C1,Cards)]);
        Inc(EachSuit[Pos(C2,Suits)]);
        if i<>5 then
           Read(ifile,C1);
    end;
    Readln(ifile);
end;

procedure Process_Hand;
var
  i,j:integer;
begin
    for i:=1 to 13 do
        Points:=Points+Multiples[Each[i]];
    for i:=1 to 4 do
        if ((EachSuit[i]=4) and (Deck[1] div 13 <>i-1)) or (EachSuit[i]=5) then
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        Points:=Points+Flush[EachSuit[i]];
    i:=1;
    while i<=11 do
    begin
        if (Each[i]>0) and (Each[i+1]>0) and (Each[i+2]>0) then
           if (Each[i+3]>0) then
           begin
              if (Each[i+4]>0) then
              begin
                 Inc(Points,5);
                 Inc(I,4);
              end
              else
              begin
                 Inc(Points,4*Each[i]*Each[i+1]*Each[i+2]*Each[i+3]);
                 Inc(I,3);
              end;
           end
           else
              Inc(Points,3*Each[i]*Each[i+1]*Each[i+2]);
        inc(i);
    end;
    for i:=1 to 5 do
        Inc(Total,Value[Deck[i] mod 13]);
    for i:=1 to 5 do
        if Total-Value[Deck[i] mod 13]=15 then
           Inc(Points,2);
    for i:=1 to 4 do
        for j:=i+1 to 5 do
        begin
            if Value[Deck[i] mod 13]+Value[Deck[j] mod 13] = 15 then
               Inc(Points,2);
            if Total-(Value[Deck[i] mod 13]+Value[Deck[j] mod 13]) = 15 then
               Inc(Points,2);
        end;
    for i:=2 to 5 do
        if Deck[i]=(Deck[1] div 13)*13+11 then
           Inc(Points);
    if Total=15 then
       Inc(Points,2);
    Writeln(ofile,'The point total is: ',Points:1);
end;

begin
    assign(ifile,'cribbage.in');
    reset(ifile);
    assign(ofile,'cribbage.out');
    rewrite(ofile);
    while not eof(ifile) do
    begin
        Init_Hand;

        Read_Hand;

        Process_Hand;

    end;
    close(ifile);
    close(ofile);
end.
```