```
                        x2=p2->px;
                        y2=p2->py;
                        z2=p2->pz;
                        cf2=p2->cf;
                        if(x1==x2 && y1==y2 && z1==z2)break;
                        p2=p2->next;
                  }
                  if(p2!=h2)
                  {
                        cf=cf1+cf2;
                        p2->flag=1;
                        if(cf!=0)
                        h3=insert_rear(cf,x1,y1,z1,h3);
                  }
                  else
                        h3=insert_rear(cf1,x1,y1,z1,h3);
                        p1=p1->next;
             }
             p2=h2->next;
             while(p2!=h2)
             {
                   if(p2->flag==0)
                   h3=insert_rear(p2->cf,p2->px,p2->py,p2->pz,h3);
                   p2=p2->next;
             }
           return h3;
   }
   void evaluate(node *head)
   {
             node *p;
             int x, y, z;
             int result=0;
             p=head->next;
             printf("\nEnter x,y,z terms to evaluate:\n");
           scanf("%d%d%d",&x,&y,&z);
           while(p!= head)
           {
             result = result + (p->cf * pow(x,p->px) * pow(y,p->py) * pow(z,p->pz));
             p=p->next;
           }
             printf("Polynomial result is: %d", result);
   }
```

```
void main()
{
        node *h1,*h2,*h3;
        int ch;
        h1=getnode();
        h2=getnode();
        h3=getnode();
        h1->next=h1;
        h2->next=h2;
        h3->next=h3;
        while(1)
        {
                printf("\n\n1.Evaluate polynomial\n2.Add two polynomials\n3.Exit\n");
                printf("Enter your choice: ");
                scanf("%d", &ch);
                switch(ch)
                {
                        case 1: h1->next=h1;
                                printf("\nEnter polynomial to evaluate:\n");
                                h1=read_poly(h1);
                                printf("The polynomial is :");
                                display(h1);
                                evaluate(h1);
                                break;
                        case 2: h1->next=h1;
                                printf("\nEnter the first polynomial:\n");
                                h1=read_poly(h1);
                                printf("\nEnter the second polynomial:\n");
                                h2=read_poly(h2);
                                h3=add_poly(h1,h2,h3);
                                printf("\nFirst polynomial is: ");
                                display(h1);
                                printf("\nSecond polynomial is: ");
                                display(h2);
                                printf("\nThe sum of 2 polynomials is: \n");
                                display(h3);
                        case 3: exit(0);
                        default:printf("\nInvalid entry");
                                break;
                }
        }
}
```