

```
SUBROUTINE VEL_3D(P,PB,XI,YI,ZI,XM,YM,ZM,XN,YN,ZN,A,U,V,W,PP,M,N)
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REAL XI(N),YI(N),ZI(N),U(N),V(N),W(N),PP(N)
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```
REAL P(M),PB(M),XM(M),YM(M),ZM(M),XN(M),YN(M),ZN(M),A(M)
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PI=3.1415927
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```
DO I=1,N
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PP(I)=0.0
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```
U(I)=0.0
```

```
V(I)=0.0
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```
W(I)=0.0
```

```
DO J=1,M
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R=SQRT((XM(J)-XI(I))**2+(YM(J)-YI(I))**2+(ZM(J)-ZI(I))**2)
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```
RN=((XM(J)-XI(I))*XN(J)+(YM(J)-YI(I))*YN(J)+(ZM(J)-ZI(I))
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```
& *ZN(J))/R*(-1)
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G1=0.25/PI/R*RN/r
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```
G2=0.25/PI/R
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```
A1=(XI(I)-XM(J))/r
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```
A2=(YI(I)-YM(J))/r
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```
A3=(ZI(I)-ZM(J))/r
```

```
T=(A1*XN(J)+A2*YN(J)+A3*ZN(J))/r
```

```
F=0.25/PI/r
```

```
PP(I)=PP(I)+(PB(J)*G2-P(J)*G1)*a(j)
```

```
U(I)=U(I)+F*(-PB(J)*A1+P(J)/r*(XN(J)-3.*A1*T))*A(J)/r
```

```
V(I)=V(I)+F*(-PB(J)*A2+P(J)/r*(YN(J)-3.*A2*T))*A(J)/r
```

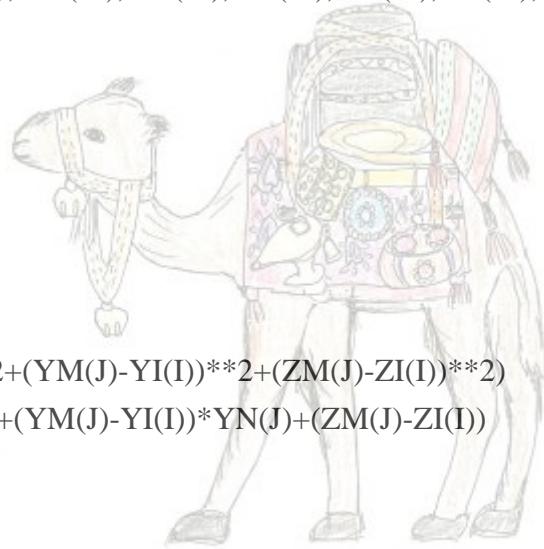
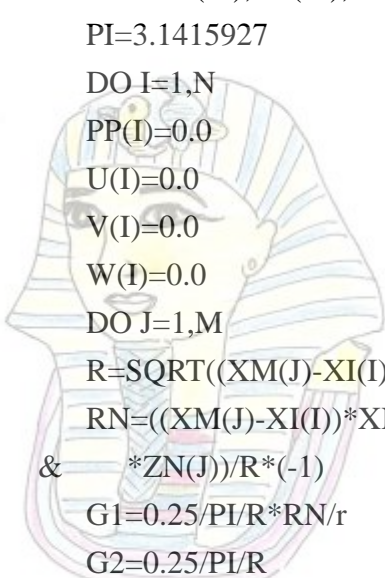
```
W(I)=W(I)+F*(-PB(J)*A3+P(J)/r*(ZN(J)-3.*A3*T))*A(J)/r
```

```
END DO
```

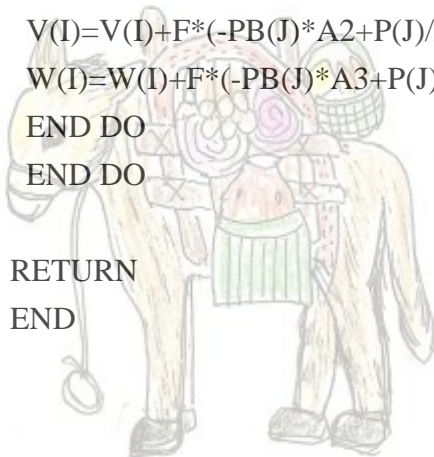
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END DO
```

```
RETURN
```

```
END
```



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阿拉丁神燈