```
A = Matrix (3,3) =
2 0 0
0 2 0
0 0 2

B = Matrix (3,3) =
3 0.5 0
0 3 4
0 0 3

A+B = Matrix (3,3) =
5 0.5 0
0 5 4
0 0 5

A-B = Matrix (3,3) =
-1 -0.5 0
0 -1 -4
0 0 -1

A*B = Matrix (3,3) =
6 1 0
0 6 8
0 0 6

B+A = Matrix (3,3) =
5 0.5 0
0 5 4
0 0 5

B-A = Matrix (3,3) =
1 0.5 0
0 1 4
0 0 1

B*A = Matrix (3,3) =
6 1 0
0 6 8
0 0 6

C=-B = Matrix (3,3) =
-3 -0.5 -0
-0 -3 -4
-0 -0 -3

C+=A+B = Matrix (3,3) =
2 0 0
0 2 0
0 0 2

C-=B = Matrix (3,3) =
-1 -0.5 0
```

```
0 -1 -4
0 0 -1

D = Matrix (3,3) =
-1 -0.5 0
0 -1 -4
0 0 -1

D+=A = Matrix (3,3) =
0 -0.5 0
0 0 -4
0 0 0

D-=A = Matrix (3,3) =
-1 -0.5 0
0 -1 -4
0 0 -1

scalar = 10.5
D*=scalar = Matrix (3,3) =
-10.5 -5.25 0
0 -10.5 -42
0 0 -10.5

data=v*(A*B+D*C*v) = 530.25
A = Matrix (3,3) =
1 0 0
0 1 0
0 0 1

B = Matrix (3,3) =
3 0.5 0
0 3 4
0 0 3

C.add(A,B) = Matrix (3,3) =
4 0.5 0
0 4 4
0 0 4

C.add(B,A) = Matrix (3,3) =
4 0.5 0
0 4 4
0 0 4

C.subs(A,B) = Matrix (3,3) =
-2 -0.5 0
0 -2 -4
0 0 -2

C.subs(B,A) = Matrix (3,3) =
2 0.5 0
```

```
0 2 4
0 0 2

C.mult(A,B) = Matrix (3,3) =
3 0.5 0
0 3 4
0 0 3

C.mult(B,A) = Matrix (3,3) =
3 0.5 0
0 3 4
0 0 3

C.mult(B,D) = Matrix (3,3) =
-31.5 -21 -21
0 -31.5 -168
0 0 -31.5

C.multElem(A,B) = Matrix (3,3) =
3 0 0
0 3 0
0 0 3

C.multElem(B,A) = Matrix (3,3) =
3 0 0
0 3 0
0 0 3

C.multElem(B,D) = Matrix (3,3) =
-31.5 -2.625 0
0 -31.5 -168
0 0 -31.5

A = Matrix (3,3) =
1 0 0
0 1 0
0 0 1

B = Matrix (3,3) =
3 0.5 0
0 3 4
0 0 3

D.add(A,B) = Matrix (3,3) =
4 0.5 0
0 4 4
0 0 4

D.add(B,A) = Matrix (3,3) =
4 0.5 0
0 4 4
0 0 4
```

```
D.subs(A,B) = Matrix (3,3) =
-2 -0.5 0
0 -2 -4
0 0 -2

D.subs(B,A) = Matrix (3,3) =
2 0.5 0
0 2 4
0 0 2

D.mult(A,B) = Matrix (3,3) =
3 0.5 0
0 3 4
0 0 3

D.mult(B,A) = Matrix (3,3) =
3 0.5 0
0 3 4
0 0 3

D.mult(B,D) = Matrix (3,3) =
0 1.5 2
0 0 12
0 0 0

D.mult(A,C) = Matrix (3,3) =
-31.5 -2.625 0
0 -31.5 -168
0 0 -31.5

D.multElem(A,B) = Matrix (3,3) =
3 0 0
0 3 0
0 0 3

D.multElem(B,A) = Matrix (3,3) =
3 0 0
0 3 0
0 0 3

D.multElem(B,D) = Matrix (3,3) =
9 0 0
0 9 0
0 0 9

D.multElem(A,C) = Matrix (3,3) =
-31.5 -0 0
0 -31.5 -0
0 0 -31.5
```