```
Matrix a
Empty matrix
Matrix b
   0
       0
           0
              0
   0
       0
           0
              0
   0
       0
           0
               0
Matrix c
Empty matrix
Matrix d
Empty matrix
Matrix e
          7
       7
                                       7
       7
Matrix f
   1
       2
   3
       4
   5
       6
Matrix g
       2
   1
   3
       4
   5
       6
Matrix h
Empty matrix
Matrix g
      2
   1
   3
       4
   5
Matrix h
   1
       2
   3
       4
   5
       6
Matrix e
   1
       2
   3
       4
```

Matrix a

 

```
Matrix b
  6 8
         10
  12 14
          16
Matrix s
  13 17
          21
  25 29 33
Matrix expected ans
     17
  13
          21
  25 29
          33
Matrix a
  1 2 3
4 5 6
Matrix b
  1 2
Matrix s
Empty matrix
Matrix expected ans
Empty matrix
Matrix a
 1 2 3
Matrix b
   2 1
           3
   3 3
4 1
          2
          2
Matrix s
  20 10 13
matrix expected ans
  20 10 13
Matrix a
3 4 2
Matrix b
  13 9
         7 15
   8
          4
              6
   6 4
           0
              3
```

Matrix s

```
83 63 37 75
matrix expected ans
 83 63 37 75
Matrix a
3
Matrix b
 5 2 11
9 4 14
Matrix s
  15 6 33
  27 12 42
matrix expected ans
 15 6 33
  27 12 42
Matrix a
5 2 11
9 4 14
Matrix b
3
Matrix s
 15 6 33
  27 12 42
matrix expected ans
 15 6 33
27 12 42
Matrix a
      9 0 2 2 9 5
2 2 1 9 6 6
  3
  0
      5
  7
         6 1
                4 9
                        8
  3
      3
         2
             9
                 2
                    1
                        7
                           4
  1
     9
            1
                2
                    9 5
                           2
         0
  4
     2
         0
             3
                 7
                    3
                        9
                           1
     9
  5
         0
             6
                6
                   7
                       8
                           2
  9
     3
         4
                       9
                           1
             6
                8
Matrix b
 6 1 6 0 8
```

3 0 0

6 4 2 4 1 7 2	8 4 8 5 4 3	9 2 4 2 5 6 7	0 0 2 2 6 5 0	6 5 2 4 4 0 1	6 4 6 7 6 3	7 6 9 4 5 5 8	2 7 8 1 5 3 5
Matrix	S		-				
132	170	200	87	128	186	175	106
122	186	166	86	92	182	195	123
197	235	267	104	179	243	253	178
128	140	164	63	86	162	194	140
118	164	184	85	110	174	166	98
138	142	144	83	91	162	137	82
187	222	244	106	160	244	232	141
201	212	210	97	171	230	204	142
matrix	expe	cted	ans				
132	170	200	87	128	186	175	106
122	186	166	86	92	182	195	123
197	235	267	104	179	243	253	178
128	140	164	63	86	162	194	140
118	164	184	85	110	174	166	98
138	142	144	83	91	162	137	82
187	222	244	106	160	244	232	141
201	212	210	97	171	230	204	142

Matrix a

7 3 2 5 6 8 9 0

Matrix b

8 14 0 3 1 7 11 5 91 3 8 4 19 5 57

Matrix s Empty matrix

matrix expected ans Empty matrix