

2.

```
1 cvx_solver sdpt3
2
3 % 2
4 A = [1, 5/2, -1/2; 5/2, 8, 0; -1/2, 0, 9];
5 cvx_begin
6     variables x(3) y
7     minimize quad_form(x, A) + ...
8         8*(abs(x(1))-1) + abs(x(2)+3) + abs(x(3)-5))
9     subject to
10         [5, y; y, x(2)+1] == semidefinite(2);
11         [y, x(3); x(3), 1] == semidefinite(2);
12 cvx_end
```

Results:

Incorrect number or types of inputs or outputs for function vec.

Error in [cvx/quad_form \(line 43\)](#)

v = vec(v);

Error in [minimize \(line 14\)](#)

x = evalin('caller', sprintf('%s ', varargin{:

3.

```
1 cvx_solver sdpt3
2
3 % 3
4 cvx_begin
5     variables x(3)
6     minimize 2*x(1) + 3*x(2) - x(3) + ...
7         norm([1/sqrt(3)*x(1), x(2)-5, sqrt(6)*
8             (x(3)-1/3*x(1)), 1], 2)
9     subject to
10         x(1)+x(2)<=2;
11         x(3)+x(2)<=2;
12         x(1)+x(3)<=2;
```

```
12     x(1)>=0;  
13     x(2)>=0;  
14 cvx_end
```

Results:

Optimal value (cvx_optval): +4.6547