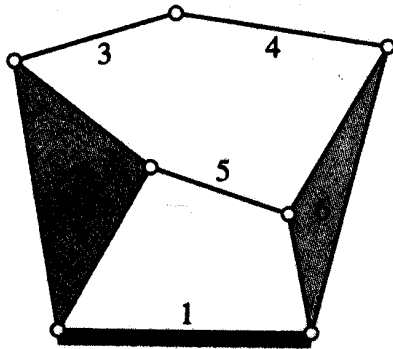


Question 1:

For the mechanism shown, identify the pairing and determine the mobility

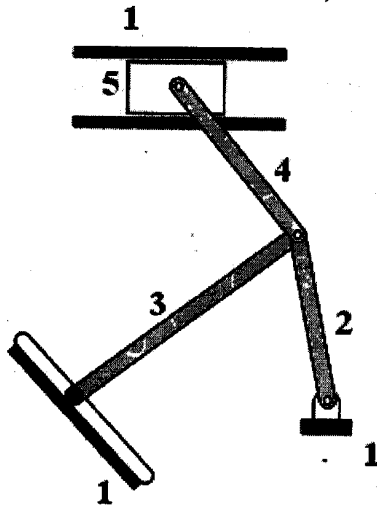


Pairing	Lower	Higher
1-2	✓	
1-6	✓	
2-5	✓	
5-6	✓	
2-3	✓	
4-6	✓	
3-4	✓	
Total	7	

$$\text{Mobility} = 15 - 14 = 1$$

Question 2:

For the mechanism shown, identify the pairings and determine the mobility

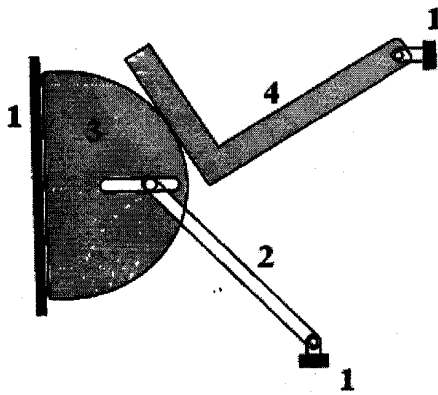


Pairing	Lower	Higher
1-2	✓	
1-3		✓
2-3	✓	
2-4	✓	
4-5	✓	
5-1	✓	
Total	5	1

$$\text{Mobility} = 12 - 10 - 1 = 1$$

Question 3:

For the mechanism shown, identify the pairings and determine the mobility

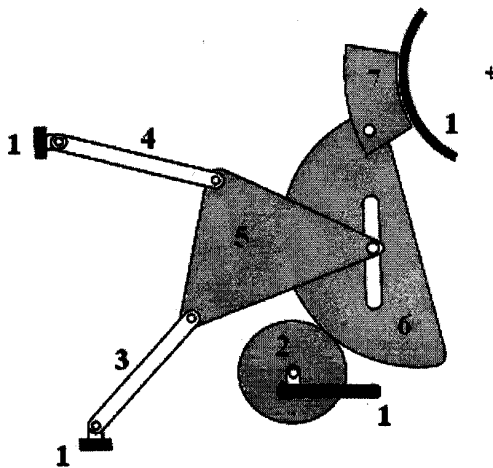


Pairing	Lower	Higher
1-2	✓	
1-3	✓	
2-3		✓
3-4		✓
1-4	✓	
Total	3	2

$$\text{Mobility} = 9 - 6 - 2 = 1.$$

Question 4:

For the mechanism shown, identify the pairings and determine the mobility

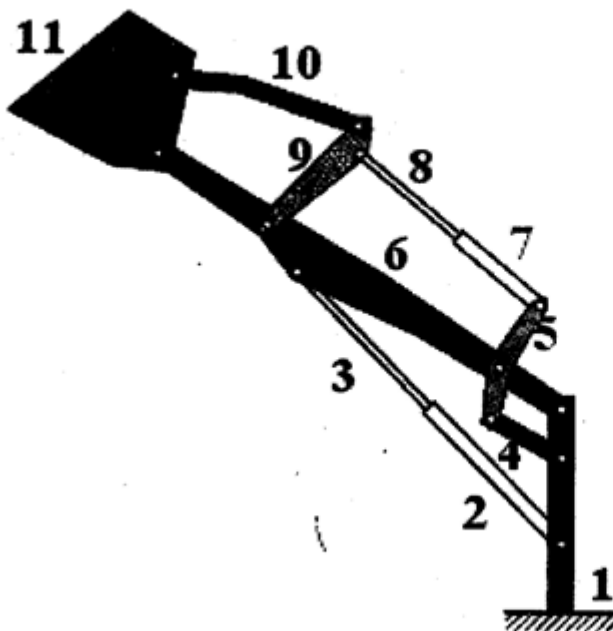


Pairing	Lower	Higher
1-2	✓	
1-3	✓	
1-4	✓	
1-7	✓	
2-6		✓
3-5	✓	
4-5	✓	
5-6		✓
6-7	✓	
Total	7	2

$$\text{Mobility} = 18 - 14 - 2 = 2.$$

Question 5:

For the machine shown, two hydraulic cylinders are used to control the position of bucket 11. Identify the pairings and determine the mobility.



Pairing	Lower	Higher
1-2	✓	
2-3	✓	
1-4	✓	
1-6	✓	
4-5	✓	
5-6	✓	
5-7	✓	
7-8	✓	
3-6	✓	
6-9	✓	
8-9	✓	
9-10	✓	
6-11	✓	
10-11	✓	
Total	14	0

$$\text{Mobility} = 30 - 28 = 2.$$