

## SQA Assignment 2 Solution – Spring 2020

### Problem 1:

$$V(G) = 4$$

Path #	Path	C1	C2	C3
1	1-2-3-4-6-7-9-10-15	T	T	T
2	1-2-3-4-6-7-9-13-15	T	T	F
3	1-2-3-4-6-9-13-15	T	F	F
4	1-2-3-6-9-13-15	F	F	F

### Problem 2:

$$V(G) = 7$$

Path #	Path	C1	C2	C3	C4	C5	C6
1	1-2-8-12-13-17	F	X	X	F	X	F
2	1-2-8-12-13-14-17	F	X	X	F	X	T
3	1-2-8-9-17	F	X	X	T	T	X
4	1-2-3-4-8-12-13-17	T	F	X	F	X	F
5	1-2-3-4-8-12-13-14-17	T	F	X	F	X	T
6	1-2-3-4-5-8-12-13-17	T	T	T	F	X	F
7	1-2-3-4-5-8-9-17	T	T	T	T	T	X

### Problem 3:

$$V(G) = 6$$

Path #	Path	C1	C2	C3	C4	C5
1	1-2-14	F	X	X	X	X
2	1-2-3-4-7-2-14	T	F	X	F	X
3	1-2-3-4-7-8-9-7-2-14	T	F	X	T	F
4	1-2-3-4-7-8-9-10-7-2-14	T	F	X	T	T

5	1-2-3-4-5-7-8-9-7-2-14	T	T	T	T	F
6	1-2-3-4-5-7-8-9-10-7-2-14	T	T	T	T	T

#### Problem 4:

$V(G) = 7$

Path #	Path	C1	C2	C3	C4	C5	C6
1	1-2-14-15-22	F	X	X	X	F	X
2	1-2-14-15-16-17-15-22	F	X	X	X	T	F
3	1-2-14-15-16-17-18-17-15-22	F	X	X	X	T	T
4	1-2-3-4-22	T	F	X	X	X	X
5	1-2-3-4-5-9-4-22	T	T	F	X	X	X
6	1-2-3-4-5-9-4-22	T	T	T	F	X	X
7	1-2-3-4-5-6-4-22	T	T	T	T	X	X