

MAU11S02 Group A2 Quiz 03 3pm 12/2/20 ANSWERS

Rules and procedures.

1. Answers must be handed up at the end of the tutorial, no other time. 2. Attempt 3 questions. Only *your first three answers* will be marked. 3. Each question carries 20 marks, so the maximum quiz mark is 60. 4. Marked quizzes will be returned, and answers published, the following week. 5. If a particular method of solution is stipulated, you get no marks if you don't use it. 6. The (9) quizzes will contribute 20% to your overall mark. 7. You are allowed to collaborate and compare answers during the tutorial. 8. **Show all work.** No marks will be given for answers which do not show the calculations.

Answer 1.

cofactor expansion along column 4

-2	-2	-4	-20
-3	-2	-5	-25
0	1	2	7
-3	-3	-5	-29

1 4 minor -6 cofactor 6
2 4 minor -2 cofactor -2
3 4 minor -2 cofactor 2
4 4 minor -2 cofactor -2
2

Answer 2.

-2	-2	-4	-20
-3	-2	-5	-25
0	1	2	7
-3	-3	-5	-29

-2	-2	-4	-20
0	1	1	5
0	1	2	7
0	0	1	1

-2	-2	-4	-20
0	1	1	5
0	0	1	2
0	0	1	1

-2	-2	-4	-20
0	1	1	5
0	0	1	2
0	0	0	-1

-2	-2	-4	-20
0	1	1	5
0	0	1	2
0	0	0	-1

det of utf is 2; no swaps; determinant is 2.

Answer 3.

1/3

Answer 4.

0	1	5	1	-3
2	6	36	10	-16
2	3	21	7	-5

Reduced Row-Echelon Form:

1	0	3	2	0
0	1	5	1	0
0	0	0	0	1

No, yes, yes.

Answer 5. No, no, yes.