

1. What is the basis for the column space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

2. What is the basis for the row space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

3. What is the basis for the null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

4. What is the basis for the left null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

5. What is the basis for the column space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

6. What is the basis for the row space of the following matrix?

- A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

7. What is the basis for the null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

8. What is the basis for the left null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

9. What is the basis for the column space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

10. What is the basis for the row space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

11. What is the basis for the null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

12. What is the basis for the left null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

13. What is the basis for the column space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

14. What is the basis for the row space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

15. What is the basis for the null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

16. What is the basis for the left null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

17. What is the basis for the column space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

18. What is the basis for the row space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

19. What is the basis for the null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

20. What is the basis for the left null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

21. What is the basis for the column space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

22. What is the basis for the row space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

23. What is the basis for the null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

24. What is the basis for the left null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

25. What is the basis for the column space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

26. What is the basis for the row space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

27. What is the basis for the null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

28. What is the basis for the left null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

29. What is the basis for the column space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

30. What is the basis for the row space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

31. What is the basis for the null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

32. What is the basis for the left null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

33. What is the basis for the column space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

34. What is the basis for the row space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

35. What is the basis for the null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

36. What is the basis for the left null space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

37. What is the basis for the column space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

38. What is the basis for the row space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

39. What is the basis for the null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

40. What is the basis for the left null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

41. What is the basis for the column space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

42. What is the basis for the row space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

43. What is the basis for the null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$



44. What is the basis for the left null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

45. What is the basis for the column space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

46. What is the basis for the row space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

47. What is the basis for the null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

48. What is the basis for the left null space of the following matrix?

A.  $(1, 2, 3)$

B.  $(1, 0, 1)$

C.  $(1, 1, 0)$

D.  $(0, 1, 1)$

49. What is the basis for the column space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

50. What is the basis for the row space of the following matrix?

- A.  $(1, 2, 3)$
- B.  $(1, 0, 1)$
- C.  $(1, 1, 0)$
- D.  $(0, 1, 1)$

#### Answer Key

- 1. B
- 2. D
- 3. B
- 4. C
- 5. A
- 6. C
- 7. A
- 8. B
- 9. A
- 10. C
- 11. A
- 12. B
- 13. A
- 14. C
- 15. A
- 16. B
- 17. A
- 18. C
- 19. A
- 20. B
- 21. A
- 22. C
- 23. A
- 24. B
- 25. A
- 26. C
- 27. A
- 28. B
- 29. A
- 30. C
- 31. A
- 32. B
- 33. A
- 34. C
- 35. A
- 36. B
- 37. A

- 38. C
- 39. A
- 40. B
- 41. A
- 42. C
- 43. A
- 44. B
- 45. A
- 46. C
- 47. A
- 48. B
- 49. A
- 50. C