

Determinanty

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Určete determinant matice \mathbf{A} :

1. $\mathbf{A} = \begin{pmatrix} 4 & -2 \\ -1 & -2 \end{pmatrix}$

5. $\mathbf{A} = \begin{pmatrix} 2 & -3 \\ 1 & -3 \end{pmatrix}$

9. $\mathbf{A} = \begin{pmatrix} 5 & -3 \\ -1 & -1 \end{pmatrix}$

2. $\mathbf{A} = \begin{pmatrix} -2 & -3 \\ 2 & -3 \end{pmatrix}$

6. $\mathbf{A} = \begin{pmatrix} -2 & 1 \\ 2 & 2 \end{pmatrix}$

10. $\mathbf{A} = \begin{pmatrix} 5 & 4 \\ 4 & 0 \end{pmatrix}$

3. $\mathbf{A} = \begin{pmatrix} 3 & -6 \\ -2 & 4 \end{pmatrix}$

7. $\mathbf{A} = \begin{pmatrix} -3 & 0 \\ -1 & 2 \end{pmatrix}$

11. $\mathbf{A} = \begin{pmatrix} 2 & -3 \\ 3 & -3 \end{pmatrix}$

4. $\mathbf{A} = \begin{pmatrix} -2 & 3 \\ 3 & -1 \end{pmatrix}$

8. $\mathbf{A} = \begin{pmatrix} 1 & 2 \\ 1 & -2 \end{pmatrix}$

12. $\mathbf{A} = \begin{pmatrix} 5 & -3 \\ -4 & 1 \end{pmatrix}$

13. $\mathbf{A} = \begin{pmatrix} -2 & 1 & -1 \\ -3 & -1 & -3 \\ -2 & 5 & 1 \end{pmatrix}$

17. $\mathbf{A} = \begin{pmatrix} 5 & 4 & 0 \\ 2 & -3 & 2 \\ -2 & 1 & -2 \end{pmatrix}$

21. $\mathbf{A} = \begin{pmatrix} -1 & 2 & 0 \\ -3 & 3 & 0 \\ 2 & 4 & -1 \end{pmatrix}$

14. $\mathbf{A} = \begin{pmatrix} 5 & -3 & 1 \\ 2 & 2 & 1 \\ 5 & -3 & 1 \end{pmatrix}$

18. $\mathbf{A} = \begin{pmatrix} 2 & 0 & 5 \\ 3 & 2 & -2 \\ 1 & 2 & -2 \end{pmatrix}$

22. $\mathbf{A} = \begin{pmatrix} 4 & -4 & -2 \\ 1 & -2 & -3 \\ -3 & 3 & -2 \end{pmatrix}$

15. $\mathbf{A} = \begin{pmatrix} -4 & 1 & -4 \\ 2 & -1 & 2 \\ 1 & -1 & -3 \end{pmatrix}$

19. $\mathbf{A} = \begin{pmatrix} 2 & -3 & 3 \\ 1 & 5 & 1 \\ -2 & -1 & -4 \end{pmatrix}$

23. $\mathbf{A} = \begin{pmatrix} 2 & 3 & 0 \\ 3 & 5 & 1 \\ -3 & 1 & -4 \end{pmatrix}$

16. $\mathbf{A} = \begin{pmatrix} 2 & 5 & 3 \\ -1 & -3 & -3 \\ 1 & -3 & 0 \end{pmatrix}$

20. $\mathbf{A} = \begin{pmatrix} 4 & -4 & -1 \\ -4 & 2 & 0 \\ 1 & -2 & 1 \end{pmatrix}$

24. $\mathbf{A} = \begin{pmatrix} -2 & 0 & 3 \\ -3 & 1 & 5 \\ 0 & 5 & 5 \end{pmatrix}$

25. $\mathbf{A} = \begin{pmatrix} 4 & 4 & 4 & 1 \\ -3 & 0 & -2 & 1 \\ 0 & -3 & 0 & -1 \\ -1 & 2 & 1 & 3 \end{pmatrix}$

27. $\mathbf{A} = \begin{pmatrix} -1 & -1 & 2 & 3 \\ 5 & 0 & -3 & -1 \\ 0 & 0 & -3 & 5 \\ 2 & -1 & 4 & -3 \end{pmatrix}$

29. $\mathbf{A} = \begin{pmatrix} -2 & 4 & 2 & 5 \\ 1 & -1 & 4 & 1 \\ 0 & 5 & 5 & 4 \\ -1 & 1 & -4 & -1 \end{pmatrix}$

26. $\mathbf{A} = \begin{pmatrix} 3 & -1 & 2 & 4 \\ -4 & 2 & -3 & -4 \\ 4 & -1 & 1 & 0 \\ -3 & 4 & -4 & 1 \end{pmatrix}$

28. $\mathbf{A} = \begin{pmatrix} -4 & 3 & -4 & 5 \\ -3 & 1 & -2 & 2 \\ -1 & 5 & -1 & 5 \\ 3 & 0 & -3 & 3 \end{pmatrix}$

30. $\mathbf{A} = \begin{pmatrix} -2 & -3 & 2 & 1 \\ 0 & 0 & 5 & -1 \\ 0 & 1 & 2 & 4 \\ 0 & 0 & 4 & 1 \end{pmatrix}$

Řešení:

1. $\det \mathbf{A} = -10$

7. $\det \mathbf{A} = -6$

13. $\det \mathbf{A} = -2$

19. $\det \mathbf{A} = -17$

25. $\det \mathbf{A} = 9$

2. $\det \mathbf{A} = 12$

8. $\det \mathbf{A} = -4$

14. $\det \mathbf{A} = 0$

20. $\det \mathbf{A} = -14$

26. $\det \mathbf{A} = -3$

3. $\det \mathbf{A} = 0$

9. $\det \mathbf{A} = -8$

15. $\det \mathbf{A} = -8$

21. $\det \mathbf{A} = -3$

27. $\det \mathbf{A} = -14$

4. $\det \mathbf{A} = -7$

10. $\det \mathbf{A} = -16$

16. $\det \mathbf{A} = -15$

22. $\det \mathbf{A} = 14$

28. $\det \mathbf{A} = 15$

5. $\det \mathbf{A} = -3$

11. $\det \mathbf{A} = 3$

17. $\det \mathbf{A} = 20$

23. $\det \mathbf{A} = -15$

29. $\det \mathbf{A} = 0$

6. $\det \mathbf{A} = -6$

12. $\det \mathbf{A} = -7$

18. $\det \mathbf{A} = 20$

24. $\det \mathbf{A} = -5$

30. $\det \mathbf{A} = 18$