Решить транспортную задачу с $m = 5$ складами и $n = 5$ пунктами назначения, в которой запасы на складах задаются вектором a, спрос в пунктах назначения — вектором b, а стоимости перевозки единицы товара из каждого склада в каждый возможный пункт назначения — матрицей C,

$$\min\left(\sum_{i=1}^{m}\sum_{j=1}^{n} c_{ij}x_{ij}\right)$$

$$\begin{cases} \sum\limits_{j=1}^{n} x_{ij} = a_i & (i = 1, 2, \ldots, m), \\ \sum\limits_{i=1}^{m} x_{ij} = b_j & (j = 1, 2, \ldots, n), \\ x_{ij} \geq 0 & (i = 1, 2, \ldots, m;\ j = 1, 2, \ldots, n), \end{cases}$$

1. $a = (5, 5, 6, 5, 9)$, $b = (4, 9, 6, 3, 8)$, $C = \begin{pmatrix} 1 & 6 & 6 & 2 & 3 \\ 3 & 2 & 4 & 5 & 5 \\ 6 & 1 & 6 & 2 & 6 \\ 6 & 5 & 5 & 5 & 3 \\ 4 & 1 & 4 & 2 & 1 \end{pmatrix}$.

2. $a = (10, 3, 10, 5, 2)$, $b = (5, 1, 3, 5, 16)$, $C = \begin{pmatrix} 6 & 1 & 1 & 2 & 5 \\ 3 & 6 & 3 & 4 & 4 \\ 2 & 2 & 2 & 6 & 2 \\ 4 & 4 & 6 & 2 & 1 \\ 2 & 3 & 2 & 4 & 6 \end{pmatrix}$.

3. $a = (5, 8, 6, 3, 10)$, $b = (5, 10, 3, 10, 4)$, $C = \begin{pmatrix} 1 & 2 & 3 & 3 & 4 \\ 4 & 6 & 2 & 3 & 6 \\ 2 & 1 & 3 & 3 & 6 \\ 1 & 5 & 3 & 3 & 5 \\ 5 & 6 & 5 & 5 & 4 \end{pmatrix}$.

4. $a = (9, 7, 2, 10, 7)$, $b = (2, 1, 6, 3, 23)$, $C = \begin{pmatrix} 5 & 3 & 1 & 3 & 4 \\ 1 & 5 & 4 & 1 & 2 \\ 2 & 4 & 3 & 5 & 1 \\ 1 & 2 & 6 & 2 & 6 \\ 5 & 4 & 3 & 3 & 2 \end{pmatrix}$.

5. $a = (6, 2, 7, 3, 13)$, $b = (6, 5, 7, 5, 8)$, $C = \begin{pmatrix} 5 & 5 & 6 & 1 & 3 \\ 5 & 4 & 3 & 2 & 5 \\ 5 & 4 & 3 & 5 & 1 \\ 1 & 2 & 2 & 4 & 3 \\ 1 & 6 & 3 & 5 & 2 \end{pmatrix}$.

6. $a = (10, 1, 4, 10, 9)$, $b = (5, 9, 2, 7, 11)$, $C = \begin{pmatrix} 2 & 3 & 6 & 5 & 2 \\ 5 & 2 & 1 & 2 & 4 \\ 4 & 2 & 1 & 5 & 2 \\ 4 & 6 & 5 & 4 & 2 \\ 5 & 1 & 1 & 1 & 3 \end{pmatrix}$.

7. $a = (7, 4, 1, 4, 16)$, $b = (9, 10, 2, 9, 2)$, $C = \begin{pmatrix} 4 & 1 & 6 & 2 & 4 \\ 4 & 6 & 6 & 5 & 2 \\ 2 & 5 & 5 & 5 & 2 \\ 5 & 2 & 5 & 6 & 6 \\ 2 & 1 & 4 & 6 & 3 \end{pmatrix}$.

8. $a = (5, 3, 5, 3, 12)$, $b = (8, 3, 5, 10, 2)$, $C = \begin{pmatrix} 3 & 4 & 3 & 6 & 5 \\ 4 & 2 & 3 & 6 & 6 \\ 6 & 1 & 2 & 1 & 5 \\ 3 & 2 & 3 & 6 & 4 \\ 6 & 6 & 6 & 5 & 1 \end{pmatrix}$.

9. $a = (4, 9, 5, 1, 7)$, $b = (3, 5, 5, 2, 11)$, $C = \begin{pmatrix} 4 & 1 & 2 & 1 & 4 \\ 3 & 4 & 6 & 6 & 1 \\ 3 & 6 & 4 & 4 & 3 \\ 5 & 1 & 6 & 5 & 2 \\ 5 & 3 & 1 & 6 & 4 \end{pmatrix}$.

10. $a = (1, 8, 3, 3, 8)$, $b = (6, 6, 3, 4, 4)$, $C = \begin{pmatrix} 3 & 6 & 4 & 6 & 4 \\ 2 & 3 & 1 & 1 & 1 \\ 1 & 2 & 1 & 2 & 3 \\ 4 & 6 & 2 & 4 & 5 \\ 6 & 1 & 4 & 5 & 1 \end{pmatrix}$.

11. $a = (3, 7, 9, 1, 3)$, $b = (1, 7, 1, 4, 10)$, $C = \begin{pmatrix} 5 & 6 & 5 & 2 & 5 \\ 4 & 5 & 3 & 3 & 5 \\ 2 & 5 & 4 & 1 & 6 \\ 1 & 6 & 2 & 1 & 5 \\ 2 & 4 & 2 & 6 & 4 \end{pmatrix}$.

12. $a = (9, 3, 6, 5, 10)$, $b = (2, 5, 9, 7, 10)$, $C = \begin{pmatrix} 6 & 6 & 2 & 6 & 3 \\ 5 & 3 & 1 & 4 & 4 \\ 2 & 4 & 5 & 1 & 4 \\ 1 & 3 & 5 & 6 & 1 \\ 4 & 2 & 6 & 6 & 5 \end{pmatrix}$.

13. $a = (7, 8, 6, 3, 10)$, $b = (8, 6, 1, 3, 16)$, $C = \begin{pmatrix} 1 & 2 & 2 & 2 & 3 \\ 3 & 3 & 3 & 5 & 5 \\ 6 & 5 & 6 & 2 & 1 \\ 6 & 5 & 6 & 2 & 1 \\ 2 & 4 & 4 & 5 & 5 \end{pmatrix}$.

14. $a = (9, 10, 3, 5, 13)$, $b = (9, 6, 7, 9, 9)$, $C = \begin{pmatrix} 5 & 2 & 2 & 4 & 5 \\ 3 & 3 & 1 & 4 & 5 \\ 3 & 5 & 4 & 4 & 5 \\ 1 & 2 & 5 & 1 & 3 \\ 5 & 1 & 5 & 2 & 1 \end{pmatrix}$.

15. $a = (3, 3, 1, 9, 12)$, $b = (8, 1, 9, 9, 1)$, $C = \begin{pmatrix} 1 & 5 & 6 & 5 & 5 \\ 5 & 4 & 3 & 3 & 6 \\ 1 & 5 & 5 & 2 & 6 \\ 2 & 2 & 1 & 3 & 5 \\ 3 & 3 & 3 & 6 & 6 \end{pmatrix}$.

16. $a = (7, 2, 8, 4, 4)$, $b = (1, 8, 7, 8, 1)$, $C = \begin{pmatrix} 3 & 5 & 5 & 1 & 5 \\ 2 & 5 & 4 & 4 & 4 \\ 2 & 4 & 1 & 5 & 2 \\ 6 & 5 & 6 & 1 & 3 \\ 4 & 6 & 5 & 3 & 6 \end{pmatrix}$.

17. $a = (10, 6, 4, 2, 10)$, $b = (9, 1, 2, 2, 18)$, $C = \begin{pmatrix} 2 & 1 & 5 & 4 & 5 \\ 5 & 5 & 5 & 5 & 4 \\ 4 & 5 & 1 & 5 & 3 \\ 5 & 3 & 1 & 6 & 2 \\ 2 & 5 & 2 & 1 & 3 \end{pmatrix}$.

18. $a = (7, 1, 10, 9, 4)$, $b = (2, 1, 5, 9, 14)$, $C = \begin{pmatrix} 3 & 2 & 5 & 1 & 6 \\ 5 & 6 & 4 & 5 & 1 \\ 1 & 6 & 4 & 5 & 5 \\ 5 & 1 & 6 & 2 & 3 \\ 4 & 5 & 1 & 6 & 4 \end{pmatrix}$.

19. $a = (1, 2, 8, 7, 24)$, $b = (6, 10, 6, 10, 10)$, $C = \begin{pmatrix} 4 & 3 & 2 & 5 & 6 \\ 6 & 2 & 2 & 5 & 5 \\ 2 & 2 & 6 & 6 & 3 \\ 5 & 2 & 4 & 5 & 3 \\ 4 & 3 & 2 & 1 & 2 \end{pmatrix}$.

20. $a = (7, 4, 2, 8, 10)$, $b = (7, 7, 9, 3, 5)$, $C = \begin{pmatrix} 3 & 5 & 6 & 5 & 3 \\ 3 & 5 & 5 & 3 & 3 \\ 6 & 2 & 3 & 1 & 6 \\ 1 & 6 & 1 & 5 & 2 \\ 2 & 4 & 3 & 3 & 3 \end{pmatrix}$.

21. $a = (4, 6, 2, 9, 17)$, $b = (7, 9, 8, 9, 5)$, $C = \begin{pmatrix} 2 & 1 & 1 & 5 & 6 \\ 3 & 3 & 1 & 3 & 1 \\ 6 & 4 & 1 & 4 & 1 \\ 2 & 2 & 3 & 3 & 3 \\ 6 & 4 & 3 & 1 & 4 \end{pmatrix}$.

22. $a = (8, 4, 7, 10, 4)$, $b = (9, 10, 1, 1, 12)$, $C = \begin{pmatrix} 6 & 2 & 6 & 1 & 6 \\ 5 & 4 & 1 & 4 & 6 \\ 1 & 1 & 5 & 2 & 1 \\ 4 & 1 & 1 & 3 & 1 \\ 4 & 5 & 2 & 2 & 1 \end{pmatrix}$.

23. $a = (9, 4, 3, 3, 14)$, $b = (7, 2, 10, 10, 4)$, $C = \begin{pmatrix} 4 & 2 & 5 & 6 & 2 \\ 3 & 3 & 2 & 3 & 6 \\ 3 & 4 & 5 & 5 & 5 \\ 5 & 3 & 5 & 5 & 3 \\ 1 & 3 & 5 & 6 & 3 \end{pmatrix}$.

24. $a = (6, 4, 4, 7, 5)$, $b = (4, 2, 3, 2, 15)$, $C = \begin{pmatrix} 6 & 3 & 3 & 5 & 5 \\ 2 & 1 & 2 & 6 & 1 \\ 6 & 6 & 2 & 2 & 1 \\ 5 & 2 & 3 & 1 & 2 \\ 6 & 5 & 5 & 6 & 4 \end{pmatrix}$.

25. $a = (10, 1, 5, 2, 2)$, $b = (2, 2, 5, 1, 10)$, $C = \begin{pmatrix} 5 & 2 & 5 & 6 & 2 \\ 4 & 1 & 4 & 6 & 1 \\ 2 & 1 & 3 & 6 & 5 \\ 3 & 3 & 1 & 2 & 1 \\ 4 & 2 & 3 & 6 & 3 \end{pmatrix}$.

26. $a = (5, 10, 7, 7, 4)$, $b = (4, 6, 8, 2, 13)$, $C = \begin{pmatrix} 1 & 2 & 3 & 5 & 4 \\ 4 & 5 & 2 & 2 & 4 \\ 2 & 4 & 6 & 2 & 3 \\ 2 & 6 & 1 & 5 & 2 \\ 4 & 2 & 2 & 4 & 1 \end{pmatrix}$.

27. $a = (7, 3, 1, 4, 2)$, $b = (3, 2, 9, 1, 2)$, $C = \begin{pmatrix} 2 & 5 & 5 & 2 & 4 \\ 4 & 5 & 3 & 2 & 1 \\ 4 & 1 & 2 & 2 & 6 \\ 3 & 1 & 4 & 2 & 2 \\ 4 & 5 & 4 & 6 & 6 \end{pmatrix}$.

28. $a = (6, 8, 5, 1, 8)$, $b = (3, 7, 1, 9, 8)$, $C = \begin{pmatrix} 5 & 2 & 2 & 5 & 6 \\ 2 & 6 & 3 & 1 & 5 \\ 3 & 1 & 4 & 2 & 6 \\ 6 & 5 & 1 & 1 & 6 \\ 3 & 2 & 1 & 1 & 6 \end{pmatrix}$.

29. $a = (2, 6, 2, 1, 21)$, $b = (1, 8, 9, 10, 4)$, $C = \begin{pmatrix} 2 & 5 & 6 & 2 & 1 \\ 1 & 2 & 5 & 4 & 5 \\ 3 & 3 & 5 & 1 & 3 \\ 4 & 5 & 5 & 3 & 6 \\ 1 & 6 & 5 & 2 & 1 \end{pmatrix}$.

30. $a = (1, 4, 6, 7, 9)$, $b = (9, 1, 6, 3, 8)$, $C = \begin{pmatrix} 3 & 4 & 4 & 1 & 3 \\ 5 & 2 & 6 & 5 & 4 \\ 5 & 2 & 1 & 2 & 5 \\ 6 & 2 & 4 & 4 & 3 \\ 6 & 5 & 6 & 1 & 5 \end{pmatrix}$.

31. $a = (7, 1, 10, 8, 3)$, $b = (3, 2, 4, 7, 13)$, $C = \begin{pmatrix} 2 & 2 & 2 & 2 & 1 \\ 3 & 4 & 5 & 6 & 2 \\ 5 & 5 & 4 & 5 & 6 \\ 3 & 2 & 6 & 1 & 4 \\ 5 & 5 & 5 & 3 & 2 \end{pmatrix}$.

32. $a = (10, 10, 3, 7, 5)$, $b = (1, 1, 10, 2, 21)$, $C = \begin{pmatrix} 1 & 1 & 3 & 6 & 5 \\ 2 & 4 & 5 & 3 & 3 \\ 1 & 1 & 4 & 1 & 5 \\ 1 & 3 & 3 & 1 & 4 \\ 2 & 1 & 3 & 3 & 6 \end{pmatrix}$.

33. $a = (3, 8, 2, 3, 11)$, $b = (10, 10, 1, 4, 2)$, $C = \begin{pmatrix} 2 & 5 & 4 & 4 & 6 \\ 1 & 4 & 6 & 5 & 5 \\ 2 & 4 & 4 & 5 & 3 \\ 6 & 3 & 5 & 4 & 5 \\ 5 & 6 & 4 & 1 & 4 \end{pmatrix}$.

34. $a = (4, 9, 10, 4, 8)$, $b = (3, 7, 8, 10, 7)$, $C = \begin{pmatrix} 2 & 3 & 5 & 1 & 5 \\ 3 & 3 & 2 & 1 & 1 \\ 3 & 1 & 5 & 4 & 4 \\ 5 & 5 & 2 & 6 & 5 \\ 1 & 4 & 3 & 3 & 4 \end{pmatrix}$.

35. $a = (4, 5, 1, 2, 8)$, $b = (3, 1, 5, 5, 6)$, $C = \begin{pmatrix} 5 & 1 & 2 & 6 & 6 \\ 1 & 2 & 2 & 2 & 5 \\ 2 & 3 & 5 & 5 & 6 \\ 1 & 4 & 1 & 5 & 4 \\ 4 & 6 & 2 & 6 & 3 \end{pmatrix}$.

36. $a = (6, 5, 3, 6, 8)$, $b = (9, 1, 7, 5, 6)$, $C = \begin{pmatrix} 3 & 4 & 3 & 5 & 2 \\ 5 & 1 & 6 & 5 & 1 \\ 6 & 4 & 2 & 4 & 1 \\ 4 & 2 & 1 & 4 & 4 \\ 2 & 4 & 5 & 5 & 3 \end{pmatrix}$.

37. $a = (1, 2, 6, 1, 17)$, $b = (7, 8, 3, 6, 3)$, $C = \begin{pmatrix} 1 & 2 & 2 & 5 & 6 \\ 1 & 3 & 4 & 5 & 5 \\ 1 & 6 & 3 & 5 & 4 \\ 5 & 3 & 5 & 1 & 6 \\ 3 & 4 & 4 & 4 & 6 \end{pmatrix}$.

38. $a = (5, 5, 6, 8, 11)$, $b = (9, 10, 7, 6, 3)$, $C = \begin{pmatrix} 3 & 3 & 3 & 5 & 6 \\ 5 & 4 & 2 & 4 & 4 \\ 1 & 2 & 4 & 6 & 4 \\ 1 & 6 & 5 & 1 & 4 \\ 6 & 3 & 2 & 4 & 3 \end{pmatrix}$.

39. $a = (3, 7, 8, 6, 6)$, $b = (2, 9, 1, 10, 8)$, $C = \begin{pmatrix} 1 & 5 & 5 & 5 & 2 \\ 3 & 5 & 3 & 6 & 1 \\ 5 & 5 & 4 & 1 & 5 \\ 6 & 2 & 2 & 4 & 5 \\ 1 & 3 & 4 & 3 & 3 \end{pmatrix}$.

40. $a = (10, 9, 5, 9, 7)$, $b = (4, 7, 6, 6, 17)$, $C = \begin{pmatrix} 5 & 1 & 2 & 4 & 5 \\ 2 & 3 & 5 & 2 & 5 \\ 6 & 6 & 1 & 2 & 3 \\ 4 & 2 & 3 & 5 & 2 \\ 4 & 4 & 2 & 3 & 2 \end{pmatrix}$.

41. $a = (10, 8, 10, 8, 3)$, $b = (1, 5, 4, 1, 28)$, $C = \begin{pmatrix} 4 & 3 & 2 & 3 & 6 \\ 4 & 1 & 3 & 6 & 5 \\ 5 & 4 & 2 & 3 & 2 \\ 2 & 2 & 2 & 4 & 1 \\ 1 & 2 & 4 & 3 & 2 \end{pmatrix}$.

42. $a = (10, 8, 7, 7, 4)$, $b = (2, 9, 10, 4, 11)$, $C = \begin{pmatrix} 6 & 6 & 5 & 3 & 2 \\ 3 & 5 & 4 & 1 & 1 \\ 2 & 3 & 3 & 6 & 1 \\ 5 & 2 & 6 & 5 & 3 \\ 1 & 2 & 5 & 3 & 1 \end{pmatrix}$.

43. $a = (9, 2, 7, 10, 8)$, $b = (1, 1, 10, 5, 19)$, $C = \begin{pmatrix} 5 & 1 & 4 & 4 & 2 \\ 1 & 4 & 4 & 6 & 6 \\ 3 & 6 & 3 & 3 & 3 \\ 4 & 3 & 2 & 2 & 4 \\ 1 & 5 & 1 & 1 & 2 \end{pmatrix}$.

44. $a = (8, 2, 10, 7, 7)$, $b = (7, 5, 6, 4, 12)$, $C = \begin{pmatrix} 6 & 1 & 5 & 3 & 3 \\ 6 & 6 & 5 & 4 & 1 \\ 5 & 3 & 3 & 3 & 3 \\ 3 & 1 & 6 & 6 & 2 \\ 2 & 4 & 6 & 3 & 4 \end{pmatrix}$.

45. $a = (3, 10, 10, 4, 10)$, $b = (8, 8, 5, 10, 6)$, $C = \begin{pmatrix} 5 & 2 & 5 & 1 & 1 \\ 2 & 6 & 1 & 3 & 5 \\ 3 & 3 & 3 & 4 & 4 \\ 4 & 6 & 5 & 2 & 3 \\ 1 & 5 & 2 & 5 & 6 \end{pmatrix}$.

46. $a = (9, 1, 8, 7, 5)$, $b = (4, 9, 6, 1, 10)$, $C = \begin{pmatrix} 1 & 3 & 1 & 4 & 2 \\ 3 & 1 & 2 & 4 & 6 \\ 4 & 6 & 6 & 5 & 2 \\ 6 & 5 & 6 & 1 & 1 \\ 2 & 6 & 5 & 5 & 1 \end{pmatrix}$.

47. $a = (8, 4, 2, 7, 20)$, $b = (6, 8, 9, 8, 10)$, $C = \begin{pmatrix} 1 & 4 & 6 & 5 & 1 \\ 1 & 5 & 2 & 1 & 3 \\ 3 & 1 & 3 & 1 & 2 \\ 2 & 2 & 3 & 1 & 4 \\ 3 & 1 & 2 & 3 & 5 \end{pmatrix}$.

48. $a = (10, 2, 7, 4, 10)$, $b = (10, 4, 6, 6, 7)$, $C = \begin{pmatrix} 4 & 6 & 1 & 4 & 5 \\ 4 & 3 & 5 & 3 & 5 \\ 3 & 5 & 3 & 2 & 2 \\ 5 & 1 & 4 & 4 & 6 \\ 1 & 2 & 5 & 2 & 5 \end{pmatrix}$.

49. $a = (5, 10, 7, 3, 3)$, $b = (7, 9, 3, 3, 6)$, $C = \begin{pmatrix} 3 & 6 & 6 & 3 & 1 \\ 5 & 3 & 6 & 1 & 5 \\ 5 & 6 & 2 & 1 & 1 \\ 4 & 6 & 1 & 5 & 6 \\ 2 & 2 & 4 & 2 & 1 \end{pmatrix}$.

50. $a = (9, 8, 6, 4, 4)$, $b = (8, 3, 9, 2, 9)$, $C = \begin{pmatrix} 1 & 6 & 1 & 1 & 2 \\ 3 & 6 & 4 & 6 & 3 \\ 4 & 3 & 5 & 6 & 3 \\ 3 & 6 & 2 & 5 & 3 \\ 4 & 1 & 3 & 4 & 6 \end{pmatrix}$.

51. $a = (10, 9, 5, 2, 3)$, $b = (3, 3, 6, 4, 13)$, $C = \begin{pmatrix} 3 & 3 & 2 & 4 & 2 \\ 1 & 3 & 2 & 5 & 1 \\ 2 & 1 & 3 & 1 & 3 \\ 5 & 1 & 4 & 2 & 4 \\ 3 & 2 & 2 & 5 & 6 \end{pmatrix}$.

52. $a = (3, 2, 9, 7, 7)$, $b = (1, 1, 8, 5, 13)$, $C = \begin{pmatrix} 3 & 4 & 2 & 1 & 2 \\ 2 & 4 & 4 & 2 & 3 \\ 3 & 4 & 1 & 1 & 4 \\ 5 & 3 & 4 & 6 & 5 \\ 2 & 5 & 3 & 5 & 4 \end{pmatrix}$.

53. $a = (9, 2, 9, 1, 7)$, $b = (4, 1, 2, 8, 13)$, $C = \begin{pmatrix} 3 & 1 & 5 & 6 & 6 \\ 6 & 6 & 5 & 4 & 5 \\ 6 & 4 & 2 & 2 & 3 \\ 6 & 3 & 2 & 3 & 1 \\ 2 & 4 & 4 & 1 & 6 \end{pmatrix}$.

54. $a = (8, 6, 1, 8, 6)$, $b = (8, 7, 1, 9, 4)$, $C = \begin{pmatrix} 1 & 6 & 6 & 2 & 3 \\ 2 & 6 & 4 & 3 & 2 \\ 3 & 1 & 6 & 2 & 6 \\ 3 & 6 & 2 & 6 & 2 \\ 4 & 6 & 1 & 6 & 2 \end{pmatrix}$.

55. $a = (6, 3, 7, 4, 2)$, $b = (5, 6, 5, 1, 5)$, $C = \begin{pmatrix} 6 & 5 & 6 & 6 & 5 \\ 4 & 2 & 4 & 2 & 3 \\ 6 & 6 & 2 & 2 & 2 \\ 3 & 3 & 4 & 2 & 1 \\ 3 & 3 & 6 & 3 & 3 \end{pmatrix}$.

56. $a = (1, 6, 5, 1, 25)$, $b = (9, 6, 8, 9, 6)$, $C = \begin{pmatrix} 2 & 2 & 2 & 4 & 3 \\ 4 & 2 & 2 & 6 & 4 \\ 2 & 2 & 3 & 2 & 6 \\ 1 & 1 & 6 & 6 & 1 \\ 3 & 2 & 3 & 1 & 5 \end{pmatrix}$.

57. $a = (4, 8, 7, 10, 3)$, $b = (6, 1, 10, 3, 12)$, $C = \begin{pmatrix} 1 & 1 & 4 & 4 & 4 \\ 1 & 6 & 6 & 3 & 2 \\ 5 & 1 & 4 & 6 & 5 \\ 6 & 1 & 5 & 5 & 6 \\ 5 & 1 & 2 & 3 & 1 \end{pmatrix}$.

58. $a = (6, 9, 5, 2, 9)$, $b = (5, 6, 9, 3, 8)$, $C = \begin{pmatrix} 1 & 5 & 6 & 2 & 1 \\ 2 & 1 & 5 & 4 & 6 \\ 1 & 2 & 6 & 5 & 5 \\ 4 & 1 & 2 & 6 & 2 \\ 4 & 3 & 3 & 6 & 2 \end{pmatrix}$.

59. $a = (3, 9, 3, 3, 10)$, $b = (3, 4, 4, 8, 9)$, $C = \begin{pmatrix} 6 & 5 & 2 & 5 & 2 \\ 1 & 6 & 2 & 3 & 4 \\ 3 & 5 & 4 & 5 & 5 \\ 3 & 5 & 1 & 5 & 2 \\ 4 & 4 & 2 & 1 & 3 \end{pmatrix}$.

60. $a = (6, 8, 7, 7, 5)$, $b = (1, 5, 6, 6, 15)$, $C = \begin{pmatrix} 5 & 5 & 1 & 6 & 4 \\ 1 & 5 & 1 & 1 & 1 \\ 2 & 3 & 4 & 1 & 6 \\ 1 & 1 & 1 & 3 & 6 \\ 2 & 4 & 1 & 1 & 4 \end{pmatrix}$.

61. $a = (9, 8, 9, 10, 3)$, $b = (6, 8, 6, 3, 16)$, $C = \begin{pmatrix} 6 & 3 & 2 & 5 & 2 \\ 2 & 3 & 1 & 2 & 2 \\ 4 & 6 & 6 & 4 & 3 \\ 6 & 2 & 3 & 6 & 6 \\ 4 & 3 & 2 & 1 & 2 \end{pmatrix}$.

62. $a = (5, 4, 10, 6, 12)$, $b = (3, 8, 9, 10, 7)$, $C = \begin{pmatrix} 6 & 5 & 1 & 6 & 2 \\ 2 & 6 & 2 & 6 & 4 \\ 6 & 5 & 5 & 5 & 5 \\ 1 & 1 & 5 & 6 & 3 \\ 2 & 3 & 2 & 5 & 2 \end{pmatrix}$.

63. $a = (5, 6, 2, 7, 1)$, $b = (6, 1, 7, 1, 6)$, $C = \begin{pmatrix} 4 & 1 & 5 & 3 & 2 \\ 1 & 2 & 6 & 1 & 4 \\ 4 & 2 & 3 & 5 & 2 \\ 2 & 1 & 2 & 2 & 3 \\ 4 & 3 & 2 & 5 & 1 \end{pmatrix}$.

64. $a = (1, 5, 2, 6, 8)$, $b = (8, 1, 1, 9, 3)$, $C = \begin{pmatrix} 3 & 1 & 3 & 2 & 6 \\ 1 & 5 & 6 & 1 & 4 \\ 4 & 4 & 4 & 1 & 1 \\ 2 & 5 & 2 & 6 & 6 \\ 2 & 6 & 1 & 3 & 6 \end{pmatrix}$.

65. $a = (1, 9, 9, 7, 12)$, $b = (8, 8, 10, 6, 6)$, $C = \begin{pmatrix} 4 & 5 & 3 & 1 & 4 \\ 4 & 4 & 6 & 4 & 4 \\ 2 & 6 & 6 & 4 & 4 \\ 5 & 5 & 2 & 4 & 6 \\ 4 & 3 & 2 & 6 & 3 \end{pmatrix}$.

66. $a = (6, 9, 5, 6, 3)$, $b = (5, 3, 1, 2, 18)$, $C = \begin{pmatrix} 5 & 4 & 6 & 4 & 4 \\ 1 & 1 & 4 & 5 & 4 \\ 3 & 1 & 2 & 6 & 2 \\ 4 & 5 & 1 & 1 & 4 \\ 6 & 3 & 5 & 5 & 1 \end{pmatrix}$.

67. $a = (7, 5, 8, 5, 8)$, $b = (10, 8, 1, 7, 7)$, $C = \begin{pmatrix} 4 & 6 & 3 & 5 & 4 \\ 1 & 3 & 1 & 4 & 5 \\ 2 & 4 & 6 & 5 & 3 \\ 2 & 3 & 4 & 4 & 2 \\ 4 & 4 & 2 & 4 & 2 \end{pmatrix}$.

68. $a = (10, 6, 3, 7, 4)$, $b = (10, 5, 4, 2, 9)$, $C = \begin{pmatrix} 1 & 3 & 3 & 4 & 1 \\ 4 & 5 & 4 & 1 & 6 \\ 2 & 5 & 3 & 2 & 2 \\ 1 & 1 & 4 & 1 & 6 \\ 5 & 5 & 4 & 4 & 4 \end{pmatrix}$.

69. $a = (9, 9, 4, 9, 8)$, $b = (8, 5, 10, 4, 12)$, $C = \begin{pmatrix} 3 & 2 & 3 & 3 & 1 \\ 4 & 3 & 5 & 1 & 2 \\ 2 & 4 & 6 & 4 & 5 \\ 2 & 5 & 1 & 3 & 5 \\ 2 & 2 & 1 & 3 & 3 \end{pmatrix}$.

70. $a = (1, 4, 3, 4, 14)$, $b = (4, 2, 10, 7, 3)$, $C = \begin{pmatrix} 6 & 1 & 2 & 2 & 6 \\ 6 & 6 & 3 & 2 & 3 \\ 2 & 3 & 1 & 5 & 1 \\ 2 & 1 & 1 & 4 & 1 \\ 4 & 1 & 3 & 3 & 1 \end{pmatrix}$.

71. $a = (7, 5, 7, 2, 7)$, $b = (1, 2, 4, 1, 20)$, $C = \begin{pmatrix} 2 & 1 & 2 & 1 & 4 \\ 5 & 3 & 1 & 3 & 1 \\ 6 & 6 & 5 & 6 & 5 \\ 2 & 2 & 4 & 4 & 2 \\ 4 & 3 & 6 & 2 & 1 \end{pmatrix}$.

72. $a = (1, 1, 6, 4, 18)$, $b = (5, 4, 9, 10, 2)$, $C = \begin{pmatrix} 1 & 5 & 1 & 3 & 2 \\ 6 & 4 & 3 & 3 & 5 \\ 6 & 4 & 2 & 1 & 4 \\ 3 & 2 & 3 & 3 & 6 \\ 2 & 5 & 4 & 6 & 5 \end{pmatrix}$.

73. $a = (3, 1, 9, 7, 8)$, $b = (5, 10, 8, 1, 4)$, $C = \begin{pmatrix} 6 & 5 & 2 & 6 & 6 \\ 3 & 1 & 3 & 1 & 5 \\ 4 & 6 & 3 & 3 & 5 \\ 6 & 3 & 4 & 6 & 6 \\ 1 & 5 & 1 & 6 & 3 \end{pmatrix}$.

74. $a = (9, 4, 4, 10, 4)$, $b = (7, 5, 8, 3, 8)$, $C = \begin{pmatrix} 5 & 3 & 3 & 6 & 4 \\ 3 & 4 & 2 & 5 & 5 \\ 2 & 4 & 5 & 2 & 2 \\ 6 & 5 & 4 & 5 & 3 \\ 3 & 4 & 3 & 6 & 6 \end{pmatrix}$.

75. $a = (9, 1, 4, 9, 8)$, $b = (2, 9, 3, 4, 13)$, $C = \begin{pmatrix} 6 & 1 & 2 & 6 & 2 \\ 6 & 2 & 6 & 2 & 1 \\ 1 & 5 & 6 & 1 & 5 \\ 4 & 3 & 3 & 5 & 6 \\ 1 & 5 & 5 & 4 & 4 \end{pmatrix}$.

76. $a = (6, 3, 10, 1, 14)$, $b = (4, 6, 8, 10, 6)$, $C = \begin{pmatrix} 6 & 2 & 1 & 3 & 4 \\ 6 & 1 & 3 & 6 & 4 \\ 2 & 5 & 5 & 2 & 4 \\ 1 & 6 & 6 & 6 & 5 \\ 3 & 3 & 2 & 1 & 5 \end{pmatrix}$.

77. $a = (5, 10, 6, 10, 10)$, $b = (9, 10, 10, 10, 2)$, $C = \begin{pmatrix} 1 & 3 & 1 & 5 & 2 \\ 3 & 5 & 1 & 6 & 6 \\ 1 & 2 & 1 & 2 & 2 \\ 4 & 5 & 5 & 5 & 1 \\ 6 & 1 & 2 & 5 & 3 \end{pmatrix}$.

78. $a = (5, 10, 6, 3, 12)$, $b = (10, 5, 4, 9, 8)$, $C = \begin{pmatrix} 2 & 2 & 3 & 6 & 1 \\ 6 & 2 & 5 & 1 & 2 \\ 6 & 6 & 3 & 5 & 5 \\ 3 & 1 & 6 & 4 & 1 \\ 2 & 4 & 1 & 3 & 6 \end{pmatrix}$.

79. $a = (1, 9, 5, 6, 13)$, $b = (10, 7, 4, 5, 8)$, $C = \begin{pmatrix} 4 & 3 & 4 & 2 & 5 \\ 5 & 4 & 4 & 5 & 3 \\ 4 & 1 & 1 & 4 & 3 \\ 1 & 3 & 1 & 3 & 5 \\ 4 & 5 & 5 & 3 & 6 \end{pmatrix}$.

80. $a = (8, 5, 9, 4, 10)$, $b = (1, 5, 4, 4, 22)$, $C = \begin{pmatrix} 5 & 1 & 3 & 5 & 1 \\ 1 & 3 & 6 & 5 & 4 \\ 3 & 3 & 4 & 6 & 1 \\ 6 & 3 & 1 & 5 & 1 \\ 3 & 5 & 6 & 4 & 6 \end{pmatrix}$.

81. $a = (9, 4, 3, 6, 7)$, $b = (10, 6, 5, 1, 7)$, $C = \begin{pmatrix} 6 & 3 & 2 & 4 & 2 \\ 5 & 6 & 1 & 1 & 4 \\ 5 & 2 & 5 & 1 & 5 \\ 1 & 5 & 3 & 1 & 5 \\ 6 & 6 & 5 & 4 & 2 \end{pmatrix}$.

82. $a = (9, 8, 9, 9, 3)$, $b = (6, 4, 6, 4, 18)$, $C = \begin{pmatrix} 4 & 5 & 6 & 6 & 5 \\ 1 & 6 & 3 & 6 & 6 \\ 2 & 4 & 6 & 1 & 1 \\ 1 & 2 & 5 & 6 & 5 \\ 2 & 4 & 6 & 6 & 5 \end{pmatrix}$.

83. $a = (1, 6, 10, 9, 8)$, $b = (9, 9, 5, 1, 10)$, $C = \begin{pmatrix} 1 & 3 & 5 & 1 & 4 \\ 6 & 1 & 2 & 4 & 1 \\ 2 & 6 & 5 & 4 & 3 \\ 5 & 1 & 5 & 2 & 2 \\ 4 & 5 & 5 & 4 & 5 \end{pmatrix}$.

84. $a = (8, 8, 5, 8, 10)$, $b = (1, 6, 9, 5, 18)$, $C = \begin{pmatrix} 1 & 2 & 2 & 2 & 2 \\ 3 & 2 & 3 & 4 & 1 \\ 4 & 6 & 6 & 6 & 6 \\ 3 & 2 & 3 & 6 & 5 \\ 2 & 6 & 3 & 6 & 4 \end{pmatrix}$.

85. $a = (3, 8, 2, 5, 5)$, $b = (7, 2, 10, 1, 3)$, $C = \begin{pmatrix} 5 & 3 & 4 & 2 & 6 \\ 6 & 3 & 3 & 2 & 5 \\ 6 & 4 & 2 & 2 & 5 \\ 1 & 5 & 1 & 6 & 3 \\ 3 & 1 & 4 & 2 & 6 \end{pmatrix}$.

86. $a = (1, 10, 7, 10, 11)$, $b = (9, 9, 10, 9, 2)$, $C = \begin{pmatrix} 3 & 3 & 1 & 6 & 2 \\ 4 & 2 & 6 & 4 & 3 \\ 2 & 2 & 1 & 3 & 2 \\ 4 & 5 & 4 & 3 & 3 \\ 5 & 3 & 1 & 4 & 1 \end{pmatrix}$.

87. $a = (10, 10, 6, 7, 8)$, $b = (9, 1, 5, 6, 20)$, $C = \begin{pmatrix} 5 & 2 & 2 & 2 & 3 \\ 5 & 4 & 6 & 2 & 1 \\ 6 & 2 & 5 & 5 & 6 \\ 1 & 2 & 6 & 4 & 2 \\ 1 & 1 & 3 & 6 & 6 \end{pmatrix}$.

88. $a = (4, 8, 1, 4, 5)$, $b = (9, 1, 1, 3, 8)$, $C = \begin{pmatrix} 6 & 1 & 5 & 6 & 6 \\ 2 & 4 & 1 & 3 & 5 \\ 1 & 3 & 5 & 5 & 6 \\ 4 & 2 & 6 & 3 & 2 \\ 1 & 1 & 5 & 3 & 3 \end{pmatrix}$.

89. $a = (6, 8, 2, 8, 2)$, $b = (1, 6, 1, 4, 14)$, $C = \begin{pmatrix} 3 & 1 & 4 & 3 & 2 \\ 3 & 3 & 5 & 4 & 5 \\ 5 & 3 & 6 & 3 & 5 \\ 3 & 5 & 2 & 4 & 4 \\ 6 & 1 & 3 & 4 & 5 \end{pmatrix}$.

90. $a = (6, 8, 1, 1, 10)$, $b = (3, 3, 3, 8, 9)$, $C = \begin{pmatrix} 1 & 6 & 6 & 5 & 6 \\ 3 & 1 & 3 & 2 & 5 \\ 4 & 4 & 6 & 6 & 3 \\ 5 & 4 & 4 & 2 & 5 \\ 6 & 3 & 5 & 2 & 6 \end{pmatrix}$.

91. $a = (4, 6, 4, 5, 12)$, $b = (4, 5, 9, 9, 4)$, $C = \begin{pmatrix} 1 & 1 & 1 & 4 & 4 \\ 3 & 3 & 3 & 3 & 4 \\ 4 & 3 & 5 & 4 & 1 \\ 1 & 5 & 2 & 4 & 1 \\ 3 & 6 & 2 & 5 & 3 \end{pmatrix}$.

92. $a = (8, 10, 9, 3, 10)$, $b = (2, 3, 2, 10, 23)$, $C = \begin{pmatrix} 3 & 5 & 5 & 6 & 3 \\ 1 & 2 & 5 & 5 & 1 \\ 5 & 3 & 4 & 1 & 3 \\ 2 & 5 & 6 & 2 & 3 \\ 3 & 6 & 3 & 4 & 4 \end{pmatrix}$.

93. $a = (10, 1, 1, 7, 16)$, $b = (5, 7, 7, 7, 9)$, $C = \begin{pmatrix} 1 & 1 & 6 & 6 & 3 \\ 3 & 2 & 5 & 5 & 2 \\ 5 & 5 & 2 & 3 & 1 \\ 3 & 6 & 6 & 5 & 5 \\ 6 & 4 & 2 & 1 & 3 \end{pmatrix}$.

94. $a = (8, 3, 5, 5, 11)$, $b = (1, 4, 10, 9, 8)$, $C = \begin{pmatrix} 3 & 4 & 4 & 6 & 1 \\ 1 & 4 & 5 & 4 & 3 \\ 3 & 5 & 4 & 5 & 2 \\ 6 & 4 & 5 & 1 & 1 \\ 1 & 4 & 4 & 6 & 4 \end{pmatrix}$.

95. $a = (7, 10, 3, 4, 4)$, $b = (10, 9, 3, 2, 4)$, $C = \begin{pmatrix} 3 & 1 & 2 & 6 & 5 \\ 1 & 5 & 2 & 4 & 1 \\ 1 & 1 & 6 & 2 & 4 \\ 1 & 2 & 3 & 1 & 4 \\ 4 & 3 & 1 & 6 & 4 \end{pmatrix}$.

96. $a = (6, 7, 1, 7, 7)$, $b = (3, 3, 6, 8, 8)$, $C = \begin{pmatrix} 3 & 6 & 4 & 3 & 5 \\ 6 & 4 & 2 & 2 & 1 \\ 2 & 3 & 3 & 4 & 4 \\ 2 & 4 & 1 & 5 & 6 \\ 6 & 1 & 1 & 5 & 1 \end{pmatrix}$.

97. $a = (2, 4, 5, 8, 10)$, $b = (8, 8, 2, 2, 9)$, $C = \begin{pmatrix} 4 & 3 & 1 & 1 & 1 \\ 6 & 6 & 3 & 1 & 2 \\ 2 & 6 & 3 & 2 & 2 \\ 5 & 1 & 2 & 1 & 2 \\ 4 & 1 & 6 & 2 & 5 \end{pmatrix}$.

98. $a = (4, 9, 7, 6, 3)$, $b = (10, 3, 6, 2, 8)$, $C = \begin{pmatrix} 2 & 2 & 6 & 6 & 2 \\ 6 & 1 & 2 & 2 & 1 \\ 4 & 3 & 5 & 3 & 3 \\ 5 & 2 & 5 & 3 & 5 \\ 5 & 1 & 4 & 6 & 6 \end{pmatrix}$.

99. $a = (5, 3, 7, 1, 9)$, $b = (8, 5, 4, 1, 7)$, $C = \begin{pmatrix} 3 & 2 & 1 & 2 & 6 \\ 6 & 3 & 5 & 3 & 4 \\ 4 & 5 & 6 & 3 & 4 \\ 4 & 4 & 4 & 6 & 4 \\ 6 & 3 & 6 & 4 & 2 \end{pmatrix}$.

100. $a = (5, 9, 1, 4, 2)$, $b = (2, 4, 2, 3, 10)$, $C = \begin{pmatrix} 4 & 2 & 3 & 5 & 3 \\ 1 & 5 & 4 & 1 & 2 \\ 2 & 5 & 2 & 1 & 4 \\ 6 & 1 & 3 & 1 & 4 \\ 2 & 2 & 5 & 4 & 1 \end{pmatrix}$.

101. $a = (3, 6, 3, 1, 7)$, $b = (2, 2, 1, 1, 14)$, $C = \begin{pmatrix} 2 & 3 & 6 & 5 & 5 \\ 6 & 2 & 5 & 4 & 5 \\ 1 & 4 & 6 & 3 & 6 \\ 1 & 4 & 1 & 5 & 1 \\ 2 & 5 & 5 & 6 & 1 \end{pmatrix}$.

102. $a = (2, 7, 8, 8, 11)$, $b = (10, 6, 3, 10, 7)$, $C = \begin{pmatrix} 6 & 4 & 6 & 2 & 3 \\ 6 & 4 & 4 & 1 & 5 \\ 4 & 1 & 3 & 6 & 2 \\ 4 & 5 & 2 & 6 & 1 \\ 1 & 6 & 6 & 6 & 3 \end{pmatrix}$.

103. $a = (9, 6, 2, 4, 9)$, $b = (3, 4, 9, 7, 7)$, $C = \begin{pmatrix} 3 & 6 & 6 & 3 & 6 \\ 4 & 3 & 6 & 6 & 1 \\ 1 & 5 & 4 & 5 & 1 \\ 4 & 1 & 3 & 3 & 3 \\ 5 & 6 & 1 & 4 & 2 \end{pmatrix}$.

104. $a = (6, 10, 2, 6, 4)$, $b = (3, 6, 10, 1, 8)$, $C = \begin{pmatrix} 2 & 5 & 4 & 5 & 3 \\ 6 & 1 & 5 & 5 & 4 \\ 5 & 6 & 4 & 2 & 2 \\ 1 & 4 & 1 & 1 & 4 \\ 1 & 3 & 4 & 6 & 5 \end{pmatrix}$.

105. $a = (7, 10, 8, 3, 11)$, $b = (9, 5, 8, 9, 8)$, $C = \begin{pmatrix} 3 & 3 & 4 & 4 & 3 \\ 6 & 5 & 6 & 4 & 5 \\ 2 & 1 & 6 & 1 & 4 \\ 3 & 2 & 6 & 3 & 2 \\ 3 & 5 & 5 & 2 & 3 \end{pmatrix}$.

106. $a = (6, 2, 10, 1, 11)$, $b = (4, 2, 4, 10, 10)$, $C = \begin{pmatrix} 5 & 2 & 3 & 5 & 1 \\ 6 & 1 & 3 & 2 & 2 \\ 5 & 6 & 1 & 3 & 1 \\ 5 & 4 & 3 & 6 & 4 \\ 6 & 1 & 4 & 2 & 4 \end{pmatrix}$.

107. $a = (6, 6, 7, 2, 8)$, $b = (3, 4, 3, 10, 9)$, $C = \begin{pmatrix} 3 & 6 & 4 & 4 & 6 \\ 1 & 6 & 6 & 4 & 2 \\ 3 & 4 & 5 & 3 & 3 \\ 5 & 1 & 1 & 6 & 3 \\ 5 & 6 & 4 & 2 & 1 \end{pmatrix}$.

108. $a = (7, 7, 9, 10, 3)$, $b = (1, 2, 6, 9, 18)$, $C = \begin{pmatrix} 6 & 1 & 2 & 6 & 4 \\ 5 & 1 & 2 & 5 & 3 \\ 1 & 4 & 6 & 5 & 4 \\ 1 & 3 & 4 & 6 & 6 \\ 4 & 2 & 4 & 6 & 6 \end{pmatrix}$.

109. $a = (9, 10, 8, 3, 10)$, $b = (9, 8, 7, 10, 6)$, $C = \begin{pmatrix} 3 & 5 & 1 & 3 & 4 \\ 1 & 2 & 5 & 4 & 3 \\ 3 & 1 & 5 & 1 & 2 \\ 2 & 3 & 2 & 5 & 4 \\ 6 & 5 & 6 & 6 & 5 \end{pmatrix}$.

110. $a = (4, 3, 7, 3, 10)$, $b = (2, 5, 8, 5, 7)$, $C = \begin{pmatrix} 1 & 6 & 6 & 2 & 2 \\ 5 & 3 & 3 & 1 & 1 \\ 2 & 5 & 6 & 1 & 6 \\ 4 & 6 & 5 & 6 & 5 \\ 3 & 1 & 6 & 5 & 4 \end{pmatrix}$.

111. $a = (8, 4, 2, 6, 7)$, $b = (3, 4, 5, 10, 5)$, $C = \begin{pmatrix} 1 & 6 & 1 & 6 & 2 \\ 1 & 4 & 1 & 1 & 2 \\ 3 & 5 & 2 & 6 & 2 \\ 6 & 5 & 2 & 2 & 3 \\ 2 & 5 & 1 & 6 & 4 \end{pmatrix}$.

112. $a = (6, 2, 2, 2, 15)$, $b = (9, 3, 7, 5, 3)$, $C = \begin{pmatrix} 3 & 2 & 6 & 5 & 3 \\ 1 & 1 & 2 & 6 & 3 \\ 4 & 4 & 2 & 1 & 5 \\ 4 & 6 & 5 & 2 & 3 \\ 6 & 3 & 3 & 2 & 2 \end{pmatrix}$.

113. $a = (4, 10, 7, 4, 10)$, $b = (10, 10, 3, 4, 8)$, $C = \begin{pmatrix} 2 & 2 & 5 & 3 & 4 \\ 2 & 2 & 6 & 2 & 3 \\ 4 & 2 & 6 & 2 & 6 \\ 2 & 5 & 6 & 1 & 6 \\ 5 & 5 & 3 & 2 & 5 \end{pmatrix}$.

114. $a = (7, 9, 6, 8, 6)$, $b = (10, 8, 8, 3, 7)$, $C = \begin{pmatrix} 6 & 1 & 1 & 2 & 5 \\ 2 & 1 & 5 & 2 & 4 \\ 3 & 5 & 4 & 5 & 6 \\ 3 & 3 & 6 & 2 & 3 \\ 5 & 6 & 2 & 4 & 2 \end{pmatrix}$.

115. $a = (3, 6, 2, 3, 4)$, $b = (4, 3, 2, 1, 8)$, $C = \begin{pmatrix} 5 & 1 & 5 & 1 & 5 \\ 1 & 5 & 1 & 5 & 5 \\ 4 & 2 & 5 & 2 & 4 \\ 1 & 3 & 4 & 3 & 6 \\ 6 & 6 & 2 & 2 & 1 \end{pmatrix}$.

116. $a = (8, 2, 9, 7, 7)$, $b = (2, 9, 4, 6, 12)$, $C = \begin{pmatrix} 3 & 4 & 1 & 6 & 4 \\ 1 & 2 & 5 & 5 & 6 \\ 2 & 1 & 2 & 6 & 5 \\ 1 & 1 & 2 & 2 & 6 \\ 5 & 3 & 4 & 1 & 1 \end{pmatrix}$.

117. $a = (9, 1, 8, 3, 11)$, $b = (7, 5, 7, 9, 4)$, $C = \begin{pmatrix} 1 & 6 & 2 & 4 & 6 \\ 1 & 1 & 6 & 2 & 4 \\ 3 & 2 & 3 & 3 & 5 \\ 5 & 5 & 1 & 6 & 6 \\ 2 & 5 & 5 & 4 & 6 \end{pmatrix}$.

118. $a = (5, 5, 8, 9, 10)$, $b = (3, 2, 8, 8, 16)$, $C = \begin{pmatrix} 1 & 3 & 5 & 4 & 6 \\ 3 & 3 & 1 & 3 & 4 \\ 1 & 4 & 3 & 4 & 6 \\ 3 & 4 & 6 & 3 & 6 \\ 4 & 5 & 6 & 6 & 2 \end{pmatrix}$.

119. $a = (2, 4, 1, 8, 13)$, $b = (6, 8, 2, 3, 9)$, $C = \begin{pmatrix} 2 & 6 & 5 & 1 & 6 \\ 6 & 4 & 3 & 2 & 5 \\ 5 & 4 & 6 & 3 & 4 \\ 3 & 1 & 4 & 2 & 5 \\ 3 & 4 & 3 & 3 & 6 \end{pmatrix}$.

120. $a = (4, 10, 2, 6, 18)$, $b = (10, 1, 10, 10, 9)$, $C = \begin{pmatrix} 3 & 6 & 6 & 3 & 2 \\ 6 & 3 & 1 & 3 & 2 \\ 3 & 2 & 5 & 6 & 4 \\ 5 & 5 & 1 & 1 & 4 \\ 5 & 1 & 3 & 5 & 5 \end{pmatrix}$.

121. $a = (1, 9, 2, 9, 4)$, $b = (3, 5, 2, 7, 8)$, $C = \begin{pmatrix} 4 & 6 & 6 & 4 & 1 \\ 6 & 3 & 3 & 2 & 1 \\ 5 & 1 & 6 & 4 & 5 \\ 1 & 4 & 2 & 5 & 4 \\ 2 & 2 & 6 & 5 & 6 \end{pmatrix}$.

122. $a = (10, 8, 1, 1, 2)$, $b = (6, 4, 1, 10, 1)$, $C = \begin{pmatrix} 5 & 1 & 6 & 3 & 2 \\ 5 & 5 & 5 & 4 & 3 \\ 4 & 5 & 1 & 4 & 2 \\ 6 & 2 & 1 & 4 & 1 \\ 4 & 4 & 4 & 1 & 1 \end{pmatrix}$.

123. $a = (9, 8, 6, 4, 7)$, $b = (4, 1, 7, 9, 13)$, $C = \begin{pmatrix} 1 & 3 & 5 & 3 & 3 \\ 6 & 4 & 2 & 5 & 5 \\ 3 & 4 & 5 & 3 & 6 \\ 2 & 6 & 4 & 2 & 5 \\ 5 & 4 & 5 & 5 & 1 \end{pmatrix}$.

124. $a = (5, 4, 9, 6, 7)$, $b = (5, 3, 8, 3, 12)$, $C = \begin{pmatrix} 2 & 2 & 5 & 3 & 3 \\ 1 & 6 & 3 & 6 & 2 \\ 4 & 5 & 1 & 4 & 4 \\ 4 & 3 & 4 & 6 & 1 \\ 5 & 1 & 2 & 4 & 5 \end{pmatrix}$.

125. $a = (2, 5, 4, 9, 6)$, $b = (3, 5, 1, 8, 9)$, $C = \begin{pmatrix} 5 & 6 & 6 & 5 & 2 \\ 6 & 2 & 1 & 5 & 5 \\ 5 & 2 & 6 & 2 & 3 \\ 4 & 3 & 6 & 3 & 4 \\ 2 & 4 & 2 & 2 & 2 \end{pmatrix}$.

126. $a = (4, 2, 2, 7, 13)$, $b = (5, 5, 7, 8, 3)$, $C = \begin{pmatrix} 2 & 5 & 5 & 2 & 4 \\ 1 & 3 & 4 & 5 & 4 \\ 3 & 1 & 3 & 6 & 4 \\ 2 & 2 & 5 & 3 & 3 \\ 6 & 5 & 2 & 5 & 2 \end{pmatrix}$.

127. $a = (8, 7, 9, 4, 4)$, $b = (7, 5, 8, 2, 10)$, $C = \begin{pmatrix} 1 & 2 & 1 & 6 & 1 \\ 4 & 5 & 3 & 3 & 2 \\ 2 & 6 & 4 & 5 & 2 \\ 1 & 2 & 2 & 2 & 4 \\ 2 & 4 & 6 & 6 & 5 \end{pmatrix}$.

128. $a = (2, 10, 7, 6, 2)$, $b = (3, 5, 6, 4, 9)$, $C = \begin{pmatrix} 3 & 4 & 1 & 1 & 2 \\ 4 & 5 & 4 & 2 & 6 \\ 5 & 4 & 1 & 2 & 3 \\ 2 & 4 & 2 & 2 & 5 \\ 6 & 1 & 1 & 5 & 6 \end{pmatrix}$.

129. $a = (6, 4, 4, 4, 5)$, $b = (9, 3, 4, 1, 6)$, $C = \begin{pmatrix} 1 & 3 & 6 & 2 & 2 \\ 6 & 5 & 6 & 3 & 6 \\ 4 & 1 & 3 & 5 & 1 \\ 4 & 4 & 3 & 3 & 5 \\ 3 & 6 & 1 & 3 & 6 \end{pmatrix}$.

130. $a = (2, 10, 4, 6, 7)$, $b = (8, 8, 7, 4, 2)$, $C = \begin{pmatrix} 4 & 2 & 1 & 2 & 3 \\ 3 & 6 & 4 & 3 & 2 \\ 6 & 4 & 6 & 6 & 3 \\ 4 & 5 & 1 & 6 & 4 \\ 5 & 6 & 2 & 3 & 6 \end{pmatrix}$.