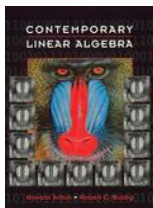


Chapter 1, Section 3 of *Contemporary Linear Algebra* by Anton and Busby



Next Page

1. Find an equation of the line passing through the points  $(3, -2)$  and  $(1, 5)$ .

▶ A  $3x - 2y = -7$

▶ B  $(x, y) = (1, 5) + t(3, -2), t \in \mathbf{R}$

▶ C  $3x - 2y = 13$

▶ D  $(x, y) = (1, 5) + t(-2, 7), t \in \mathbf{R}$

▶ E  $7x + 2y = 0$

Next Question

2. Find a general equation of the plane given by  $(5, 1, 1) \cdot ((x, y, z) - (1, -2, -2)) = 0$ .

▶ A  $5x + y + z = 9$

▶ B  $x - 2y - 2z = 5$

▶ C  $5x + y + z = 1$

▶ D  $x - 2y - 2z = 9$

▶ E  $5x + y + z = 0$

Next Question

3. Find an equation of the plane through the point  $(-1, 2, 2)$  that is parallel to the plane given by

$$(x, y, z) = (1, 5, 5) + t_1(2, -1, 0) + t_2(1, 0, -2), \quad t_1, t_2 \in \mathbf{R}.$$

▶ A  $2x + 4y + z = 8$

▶ B  $x + 5y + 5z = 19$

▶ C  $x - y + 2z = 1$

▶ D  $3x - y - 2z = -9$

▶ E  $x + y + z = 3$

Next Question

4. The line determined by the equation

$(x_1, x_2, x_3, x_4) = (5, -1, 2, 3) + t(6, -2, 2, 4)$ ,  $t \in \mathbf{R}$ , passes through the point

- ▶ A  $(4, -2, 1, 3)$
- ▶ B  $(6, -2, -2, 4)$
- ▶ C  $(-4, 2, -1, -3)$
- ▶ D  $(6, -2, 2, 4)$
- ▶ E  $(11, 3, 4, 7)$

Next Question

5. The point two-fifths of the way from  $(10, 20, -40, -50, 10)$  to  $(60, -10, 50, 10, 0)$  is

- ▶ A  $(30, 8, -4, -26, 6)$
- ▶ B  $(320, -10, 170, -50, 20)$
- ▶ C  $(35, 5, 5, -20, 5)$
- ▶ D  $(40, 2, 14, -14, 4)$
- ▶ E  $(320/7, -10/7, 170/7, -50/7, 20/7)$

No more questions



RIGHT!

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Wrong...try again

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