
5 行列式の基本計算

問題 5.1. (1) -41 . (2) 34 . (3) 205 . (4) $x^2 - 5$. (5) $x^2 + 8x - 21$.

問題 5.2. (1) 15 . (2) 26 . (3) -225 . (4) -73 . (5) -85 . (6) -38 . (7) -10 . (8) 25 . (9) $x^3 + 13x + 5$.
(10) $x^3 - 20x - 17$. (11) $3x^2 + 4x + 4$. (12) $2x^2 - 18x - 2y^2 - 18y$.

問題 5.3. (1) -210 . (2) -800 . (3) 648 . (4) 720 .

問題 5.4. (1) $\overrightarrow{AB} = (5, -2)$, $\overrightarrow{AC} = (-3, -6)$. 面積は 18 .

(2) $\overrightarrow{AB} = (2, 5)$, $\overrightarrow{AC} = (-4, 1)$. 面積は 11 .

(3) $\overrightarrow{AB} = (-4, -6)$, $\overrightarrow{AC} = (6, -11)$. 面積は 40

問題 5.5. (1) $\overrightarrow{AB} = (3, -1, -1)$, $\overrightarrow{AC} = (3, -1, 2)$, $\overrightarrow{AD} = (2, 2, -1)$. 体積は 4 .

(2) $\overrightarrow{AB} = (-2, 2, -2)$, $\overrightarrow{AC} = (2, 1, -7)$, $\overrightarrow{AD} = (-1, 5, -3)$. 体積は 10 .

問題 5.6. (1) $10x - 7y + 6z - 5 = 0$. (2) $-6x + 15y + 13z - 17 = 0$. (3) $2x + 5y - 4z - 1 = 0$. (4)
 $7x - 5y + 4z - 3 = 0$.