

**HKDSE Mathematics in Action (Extended Part)**  
**Module 2 Algebra and Calculus Volume 2**  
**Amendment List**

Page	Original	Amendment
11.7	Consider a system of two linear equations in two unknowns $x, y$ .	Consider a system of two linear equations in two unknowns $\begin{cases} ax + by = \alpha \\ cx + dy = \beta \end{cases}$ , where $a, b$ are constants not both equal to zero; $c, d$ are constants not both equal to zero; $\alpha$ and $\beta$ are constants.
11.7		<p><i>(Under the table, add the following note.)</i></p> <p><b>Note:</b> In a system of two linear equations in two unknowns,</p> <p>(i) if it contains an equation in the form <math>0x + 0y = k</math>, where <math>k \neq 0</math>, then the system has <u>no solution</u>;</p> <p>(ii) if it does not contain an equation in the form <math>0x + 0y = k</math>, where <math>k \neq 0</math>, but contains an equation in the form <math>0x + 0y = 0</math>, then the system has <u>infinitely many solutions</u>.</p> <p>For example, <math>\begin{cases} 0x + 0y = 2 \\ 3x - 2y = 1 \end{cases}</math> has no solutions, while <math>\begin{cases} 0x + 0y = 0 \\ 2x + 5y = 6 \end{cases}</math> has infinitely many solutions.</p>
12.22	$OP = 4\mathbf{i} + (-3)\mathbf{j} = 4\mathbf{i} - 3\mathbf{j}$	$\overrightarrow{OP} = 4\mathbf{i} + (-3)\mathbf{j} = 4\mathbf{i} - 3\mathbf{j}$