

## AP Inter 1st Year Mathematics 1A Answer Key 2025

### Section A Question I

Question	Answers
1. Find the domain of the real valued function $f(x) = \frac{1}{\sqrt{1-x^2}}$	$x \neq -1$ and $x \neq 1$
2. If $A = \{1, 2, 3, 4\}$ and $f: A \rightarrow \mathbb{R}$ is a function defined by $f(x) = x^2 - x + \frac{1}{x} = 1$ , the find the range of $f$ .	Range of $f = \frac{1}{2}, 1, \frac{7}{4}, \frac{13}{5}$
3. Find the cofactors of the elements 2, -5 $\begin{bmatrix} -1 & 0 & 5 \\ 1 & 2 & -2 \\ -4 & -5 & 3 \end{bmatrix}$	Cofactors = 17, 3
4. Find the value of $x, y, z$ and $a$	$x=2, y=8, z=5$ and $a=5$
5. Find a vector in the direction of vector $a = i + 2j$ that has magnitude 7 units	$a = \frac{1}{\sqrt{5}} [i + 2j]$
6. Find the vector equation of the line joining the points $2i + j + 3k$ and $-4i + 3j - k$	$r = (1-t)(2i + j + 3k) + t(-4i + 3j - k)$
8. Find the maximum and minimum value of $3 \sin x - 4 \cos x$	maximum value 5 and minimum value -5