Math 454 - Financial Mathematics - Spring 2025

Selected Solutions for Spring 2025 Quizzes

Quiz 01:

#1 (a): Easy way: $A_1 \cup A_2 \cup A_3 = [-4, 9]$. and $h^{-1}(A_1 \cup A_2 \cup A_3) = \boxed{[-3, 3]}$

Hard way: compute $h^{-1}(A_k)$ for $k = 1, 2, 3$ and take the union.   **#1 (b)**: See Definition 3.5

#2: $\boxed{\,]-\sqrt{2}, \infty]\,}$ **#3**: See Definition 3.2