// Function to check if Koko can eat all bananas at given speed within h hours

FUNCTION check(speed, piles, h)

INITIALIZE count = 0

// Iterate through each pile

FOR each pile in piles DO

count += (pile + speed - 1) / speed

RETURN count ≤ h

END FUNCTION

// Function to find the minimum eating speed

FUNCTION minEatingSpeed(piles, h)

lo ← 1

hi ← MAX\_VALUE in piles // Maximum number of bananas in a pile

// Binary search to find the minimum valid speed

WHILE lo < hi DO

mid ← lo + (hi - lo) / 2

// Check if mid speed is sufficient

IF check(mid, piles, h) THEN

hi ← mid // Try a smaller speed

ELSE

lo ← mid + 1 // Increase speed

RETURN

END FUNCTION