Sure, let's break it down step by step! First, let's simplify the equation in small parts so it's easier to understand.

502 + (6 + 519) can be solved by adding the numbers inside the parentheses first. 6 + 519 is 525, so the equation becomes 502 + 525.

By adding 502 and 525 together, we get 1027. Now our equation looks like this: 1027 = (6 + k) + 519.

To solve for k, we need to isolate it on one side of the equation. Let's start by removing the 519 from both sides. Subtracting 519 from 1027 gives us 508 on the left, leaving us with 6 + k on the right.

Finally, to find the value of k, we just subtract 6 from both sides of the equation. 6 + k - 6 = k. Therefore, k = 508 - 6 which equals 502.

So, the answer to the equation 502 + (6 + 519) = (6 + k) + 519 when solved for k is k = 502.