Use equation editor or an equivalent program to write a detailed (textbook-quality) solutions for each of these:

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| --- | --- |
| 1. Write the following infinite series in sigma notation (6 points) | 2. Solve for x: (6 points) |
| 3. Find the solution to this system of simultaneous equations using Gaussian elimination on an augmented matrix:  (14 points) | 4. Solve for x: (6 points) |
| 5. Find shaded area (use integration): (16 points)    The region is bounded by  , ,  and | 6. Find the algebraic (equation) representation of the piecewise-defined function: (12 points) |