§7.8 Homework Calculus 2 2/21/23

It's homework. Each problem is worth 0 points... this time.

- 1. Compute the total value of 10 payments, each of \$1000. \$10,000
- 2. Compute the total value of 20 payments, each of \$3000. \$60,000
- 3. Compute the total value of 30 payments, each of \$500. \$15,000
- 4. Compute the total value of 100 payments, each of \$200. \$20,000
- 5. Compute the total value of an income stream of \$50,000/year over 10 years. \$500,000
- 6. Compute the total value of an income stream that begins at \$5000/year and increases linearly to \$10000 over a 9-year period. \$247,500
- 7. Compute the total valure of an income stream that begins at \$0/year and increases linearly to \$20000 over a 10-year period. \$100,000
- 8. Compute the total value of an income stream that begins at \$1,000,000/year and increases exponentially by 10%/year over a 5-year period. \$6,405,506.75
- 9. Compute the total value of 10 payments, beginning at \$1000 and each increasing 2% over the previous. \$10,949.72
- 10. Compute the total value of 20 payments, beginning at \$3000 and each increasing 4% over the previous. \$89,334.24
- 11. Compute the total value of 30 payments, beginning at \$500 and each increasing 6% over the previous. \$39,529.09
- 12. Compute the total value of 100 payments, beginning at \$200 and each increasing 5% over the previous. \$522,005.03
- 13. Compute the future value (assuming 5% continuous interest) of an income stream of \$50,000/year over 10 years. \$648,721.27
- 14. Compute the present value (assuming 5% continuous interest) of an income stream that begins at \$5000/year and increases linearly to \$10000 over a 9-year period. \$219,754.95
- 15. Compute the future valure (assuming 5% continuous interest) of an income stream that begins at \$0/year and increases linearly to \$20000 over a 10-year period. \$118,977.02
- 16. Compute the present value (assuming 5% continuous interest) of an income stream that begins at \$1,000,000/year and increases exponentially by 10%/year over a 5-year period. \$5,611,684.84