

$$\int_a^b f(x) = \lim_{n \rightarrow \infty} \sum_{i=1}^n f\left(a + \frac{b-a}{n}i\right) \frac{b-a}{n}$$



$$\text{RHS} = (1) f(1) + (1) f(2) + (1) f(3) + (1) f(4) + (1) f(5)$$

$$\text{LHS} = 1(f(0)) + 1 f(1)$$

$$+ 1 f(2) + 1 f(3) + 1 \cdot f(4)$$

$$\text{MS} = 1 f(0.5) + 1(f(1.5)) + 1 \cdot f(2.5) + 1 \cdot f(3.5) + 1 \cdot f(4)$$

$$\text{TSun}^{\text{trapezoidal}} = \frac{1}{2}(f(0)+f(1)) \cdot 1 + \frac{1}{2}(f(1)+f(2))(1) + \dots + \frac{1}{2}(f(4)+f(5))$$

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|------|-------|-------|
| 1. D | 6. D | 11. C |
| 2. B | 7. C | 12. D |
| 3. D | 8. C | 13. A |
| 4. A | 9. B | 14. D |
| 5. B | 10. D | 15. B |

