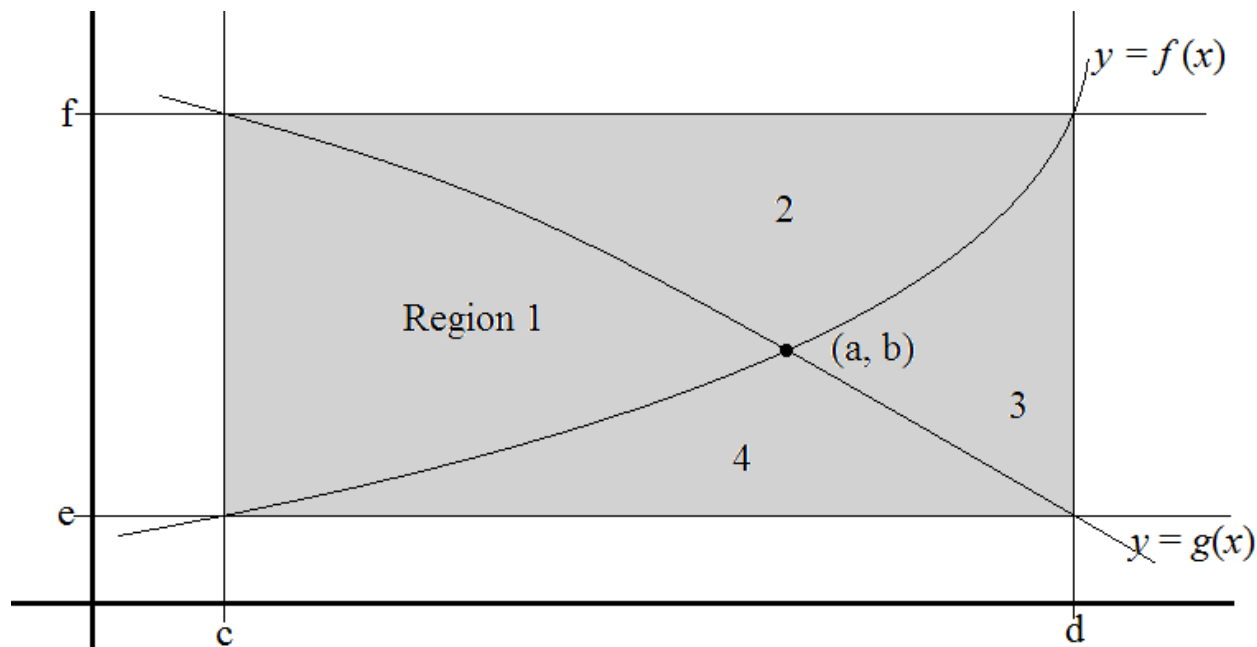


Setting Up Area Integrals: Practice



Error Analysis: Someone made a mistake in setting up the integrals below! Explain why each of the following integrals will NOT find the area of the specified region.

1. Region 1: $\int_a^c g(x) - f(x) dx$

2. Region 2: $\int_c^d f(y) - g(y) dy$

3. Region 3: $\int_a^d g(x) - f(x) dx$

4. Region 4: $\int_c^d f(x) - e dx$

Matching Integrals to Areas: Match each of the following integrals to a region having that area.

5. $\int_c^a f(x) - e dx + \int_a^d g(x) - e dx$

6. $\int_b^f f(y) - g(y) dy$

7. $\int_e^b g(y) - f(y) dy$

8. $\int_c^a f - g(x) dx + \int_b^d f - f(x) dx$

9. $\int_e^b f(y) - c dy + \int_b^f g(y) - c dy$

10. $\int_a^d f(x) - g(x) dx$

11. $\int_e^b d - g(y) dy + \int_b^f d - f(y) dy$

12. $\int_c^a g(x) - f(x) dx$

13. $\int_c^d g(x) - e dx - \int_c^a g(x) - f(x) dx$

14. $\int_c^d f - g(x) dx - \int_a^d f(x) - g(x) dx$