4. (2 points each—no partial credit) Suppose \( \int_a^b f(x)dx = 2 \) and \( \int_a^b g(x)dx = 6 \). Evaluate the following expressions, if possible. If the expression cannot be evaluated with what is given, simply indicate "Insufficient information." Assume that all functions are continuous on the interval \([a, b]\).

(a) \( \int_a^b (g(x))^2dx - (\int_a^b g(x)dx)^2 \)

(b) \( \int_a^a (h(x))dx \)

cannot be evaluated

(c) \( \int_{a+2}^{b+2} f(x - 2)dx \)

(d) \( \int_a^b (f(x)g(x))dx \)

cannot be evaluated

(e) \( \int_b^a (g(x))dx \)

\( \)