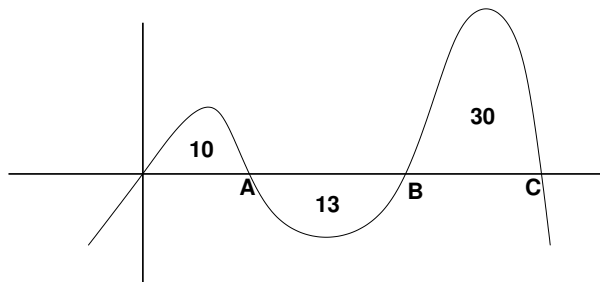1. Here is the graph of $f(x)$ with the areas of the regions indicated. Evaluate these integrals.



(a) $\int\limits_{0}^{A} f(x)dx =$

(b) $\int\limits_{A}^{B} f(x)dx =$

(c) $\int\limits_{B}^{C} f(x)dx =$

(d) $\int\limits_{A}^{C} f(x)dx =$

(e) $\int\limits_{0}^{C} f(x)dx =$

(f) $\int\limits_{0}^{B} f(x)dx =$

2. Here is the graph of $g(x)$ with the areas of the regions indicated. Evaluate these integrals.



(a) $\int\limits_{0}^{A} g(x)dx =$

(b) $\int\limits_{A}^{B} g(x)dx =$

(c) $\int\limits_{B}^{C} g(x)dx =$

(d) $\int\limits_{A}^{C} g(x)dx =$

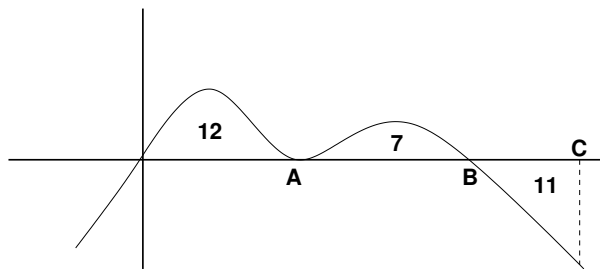(e) $\int\limits_{0}^{C} g(x)dx =$

(f) $\int\limits_{0}^{B} g(x)dx =$

Solutions

1. (a) 10
   (b) $-13$
   (c) 30
   (d) $-13 + 30 = 17$
   (e) $10 - 13 + 30 = 27$
   (f) $10 - 13 = -3$

2. (a) 12
   (b) 7
   (c) $-11$
   (d) $7 - 11 = -4$
   (e) $12 + 7 - 11 = 8$
   (f) $12 + 7 = 19$