

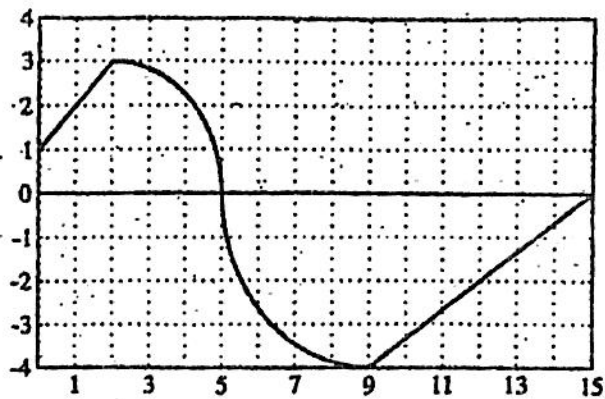
Name: _____

Date: _____

AP Calculus – Using Area to Evaluate Definite Integrals

The graph of the function f consists of two line segments and two quarter circles.

Graph of $y = f(x)$



For # 1 – 10, use the graph to evaluate each of the following integrals:

1. $\int_0^2 f(x) dx$

2. $\int_2^5 f(x) dx$

3. $\int_0^5 f(x) dx$

4. $\int_5^9 f(x) dx$

5. $\int_5^5 f(x) dx$

6. $\int_0^{15} f(x) dx$

7. $\int_0^{15} |f(x)| dx$

8. $\int_{15}^9 f(x) dx$

9. $\int_{12}^{15} f(x) dx$

10. $\int_{12}^9 f(x) dx$