$\qquad$
Assume $F^{\prime}(x)=f(x)$ and the Fundamental Theorem of Calculus applies in each case. Give an illustration for each quantity on the indicated graph.

1. $f(a)$

Graph of $F(x)$

a
2. $\int_{a}^{b} f(x) d x$

Graph of $F(x)$

3. $\frac{\int_{a}^{b} f(x) d x}{b-a}$

Graph of $f(x)$


Graph of $f(x)$


Graph of $f(x)$

4. $F^{\prime}(a)$

Graph of $F(x)$

a

Graph of $f(x)$

5. $F(b)-F(a)$


6. $\frac{F(b)-F(a)}{b-a}$


Graph of $f(x)$


