Name: $\qquad$ Date: $\qquad$

| Learning Goal 3.6 | Linear Approximations. |
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## More Questions

1. Approximate the value of $\sqrt{51}$ without a calculator.
2. Approximate the value of $\sin 87^{\circ}$.
3. Given that $f(5)=3$ and $f^{\prime}(5)=1 / 2$, approximate the value of $f(5.02)$.
4. Let $f(x)=\sqrt{x+4}$. What is $f(6)$ ?
5. Find the linear approximation of $\sin x$ at $x=0$.
6. Find the linearization of $f(x)=\sqrt[3]{x}$ then use it to approximate when $x=9$.
