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**Linear Approximation:**

\[ L(x) = f(a) + f'(a)(x - a) \]

**Relative Error:**

\[ \frac{|L(x) - f(x)|}{|f(x)|} \times 100 \]

If it says “approximate the change,” make sure you subtract the initial from the \( L(x) \)

When it asks for a linear approximation at “a,” write the general equation without substituting in for \( x \) but substitute for \( a \)