



linear approximation

Find linear approximation of:

$$f(x) = \frac{2}{x} \text{ at } x = 1$$

- (A) $L(x) = 4 + 2x$
- (B) $L(x) = -4 - 2x$
- (C) $L(x) = 4 - 2x$
- (D) $L(x) = -4 + 2x$

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Use the linear approximation of:

$$f(x) = \frac{2}{x} \text{ at } x = 1 \text{ to estimate } \frac{2}{0.99}$$

- (A) 2.2
- (B) 2.02
- (C) -2.2
- (D) -2.02

Find linear approximation of:

$$f(x) = (x + 1)^{\frac{1}{3}} \text{ at } x = 0$$

- (A) $L(x) = 1 + \frac{1}{3x}$
- (B) $L(x) = 1 - \frac{1}{3x}$
- (C) $L(x) = -1 - \frac{1}{3x}$
- (D) $L(x) = -1 + \frac{1}{3x}$