



Use the linear approximation of :

$$f(x) = (x+1)^{\frac{1}{3}} \text{ at } x=0 \text{ to estimate } \sqrt[3]{1.2}$$

- (A) $\frac{14}{15}$
- (B) $\frac{16}{15}$
- (C) $-\frac{14}{15}$
- (D) $-\frac{16}{15}$

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Find linear approximation of:

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

- (A) $L(x) = \frac{\pi}{2} + x$
- (B) $L(x) = -\frac{\pi}{2} - x$
- (C) $L(x) = -\frac{\pi}{2} + x$
- (D) $L(x) = \frac{\pi}{2} - x$

Use linear approximations to estimate:

$$\sqrt[5]{-1.3}$$

- (A) -0.54
- (B) -1.06
- (C) 0.54
- (D) 1.06