

Exercise 56

The quantity (in pounds) of a gourmet ground coffee that is sold by a coffee company at a price of p dollars per pound is $Q = f(p)$.

- (a) What is the meaning of the derivative $f'(8)$? What are its units?
 - (b) Is $f'(8)$ positive or negative? Explain.
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Solution

- (a) $f'(8)$ is the rate that the amount of coffee sold increases with respect to price when the price is \$8. Its units are pounds per dollar.
- (b) $f'(8)$ is negative because the higher the price is, the less you will sell.