Average Value of a Function

Compute the average value of the function on the given interval:

1. $f(x) = 3x$ on $[1,3]$

2. $f(x) = x^2$ on $[-1,2]$

3. $f(x) = \sin x$ on $[0, \pi]$

4. $f(x) = \frac{1}{x}$ on $[1, e]$

5. $f(x) = e^x$ on $[-1, \ln 5]$