

5.4

$$(14) \int_a^b (f(x) + g(x)) dx = \int_a^b f(x) dx + \int_a^b g(x) dx = 8 + 2 = \boxed{10}$$

OR

$$(15) \int_a^b c f(z) dz = c \int_a^b f(z) dz = \boxed{8c}$$