More Differentiation Practice

Determine the derivative of the following functions:

1.
$$f(x) = 4^x$$
.

2.
$$f(x) = 5(2)^x$$

3.
$$f(x) = x^2 + 2^x$$

4.
$$f(x) = 17 + 42\sqrt{x} - 9^x$$

5.
$$f(x) = \pi^x + x^{\pi} + e^x + e^{\pi} + \pi^e + x^{\pi}$$

6.
$$f(x) = 2x^3$$
.

7.
$$f(x) = 2x^{-3} - e^x$$
.