For each function, find its Laplace transform.

1) $f(t) = \sin(at + b)$, where $a$ and $b$ are constant.
2) $f(t) = \sin t \cos^2(2t)$.
3) $f(t) = (at + b)^2$, where $a$ and $b$ are constants.
4) $f(t) = \cos(at + b)$, where $a$ and $b$ are constants.
5) $f(t) = \sinh(at)$, where $a$ is a constant.
6) $f(t) = \cosh(at)$, where $a$ est une constante.
7) $f(t) = te^{at}$ , where $a$ is a constant.
8) $f(t) = t^n e^{at}$, where $n$ is an integer and $a$ is a constant.
9) $f(t) = t \sin at$ , where $a$ is a constant.
10) $f(t) = t \cosh(at)$ , where $a$ is a constant.
11) $f(t) = t^2 \sinh(at)$ , where $a$ is a constant.
12) $f(t) = \sin 3t + \cos 3t$.
13) $f(t) = e^{3t} \cosh(4t) + 20t$.
14) $f(t) = \cos t \sin t$.
15) $f(t) = te^{-t} \sin(2t)$.
16) $f(t) = t^3 \cos t \sin t$.