## Bacterial Colony Problem

A company develops two strains of bacteria that grow at unthinkable rates. Both start with a single organism. The first colony has $e^{t^{2}}$ organisms at any time $t$ (in minutes). The second colony grows at the rate of $(3 t+5) e^{t^{2}}$ organisms per minute at any time $t$ (in minutes). Can you predict which colony will be larger after five minutes?

