1. The function $n \cdot \log_2(n)$ asymptotically \hspace{1cm} that $n^{3/2}$:
   (a) grows faster
   (b) grows more slowly
   (c) grows at the same rate

2. $2^{\log_2 n}$ can be simplified to a
   (a) logarithmic function
   (b) polynomial function
   (c) exponential function
   (d) sublinear function

3. $2^{\log_2 (\log_2 n)}$ can be simplified to a
   (a) logarithmic function
   (b) polynomial function
   (c) exponential function
   (d) sublinear function

4. The function $2n^2$ asymptotically \hspace{1cm} that $n^{100}$:
   (a) grows faster
   (b) grows more slowly
   (c) grows at the same rate

5. The function $(\log_2(n))^{\log_2(n)}$ asymptotically \hspace{1cm} that $n^3$:
   (a) grows faster
   (b) grows more slowly
   (c) grows at the same rate