Question: Compare performance at 16 threads across the different synchronization modes. Why are the speedup this way?
Increasing the granularity decreases the chunk since. As the number of chunks increase, the amount of overhead increases linearly. An increase in overhead decreases speedup.

Example 1:
When n=1,000,000 & threads=16, the speedup dramatically decreases by increasing the granularity by 100000 every time, because a change in granularity by a 100000 is a major increase in overhead.

Example 2:
When n=100,000,000 & threads=16, the speedup isn't affected dramatically by increasing the granularity by 100000 every time, because a change in granularity by a 100000 is not a major increase in overhead.

In short, the higher the ratio (granularity/n), the higher the decrease in speedup as granularity increases.

Question: For thread level synchronization, compare the performance at 16 threads of different n and intensity. Why are the plots this way?

Generally, the speedup offered by using 16 threads only becomes dramatic as the number of n and intensity increase. While, increases n by itself offers dramatic improvement, it's even more so when n and intensity are both increased.