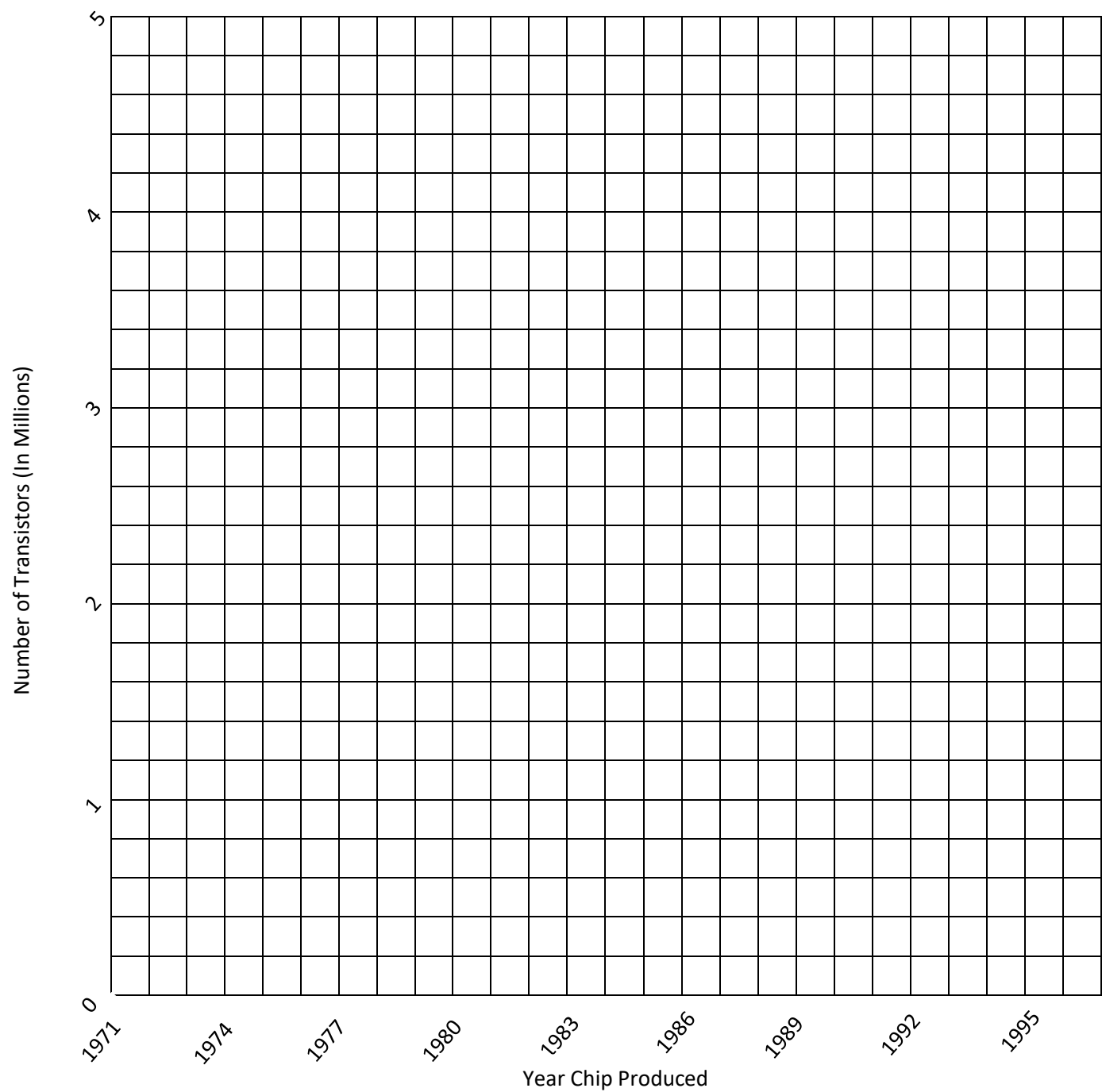


- 1) What is Moore's Law?
- 2) What two major issues are causing industry to stop pursuing Moore's Law?
- 3) Traditionally, hardware was designed first, and software was designed that would take full advantage of the hardware. How does the upcoming industry roadmap, which some are calling the More than Moore strategy, change this paradigm?
- 4) In the article it states that the number of transistors roughly doubles every two years. What type of relationship would that represent? (Linear, Quadratic, Exponential, Square Root? You may need to look up examples of these.)
- 5) Graph the number of transistors present on these chips created by INTEL.
(<http://www.intel.com/content/dam/www/public/us/en/documents/corporate-information/history-intel-chips-timeline-poster.pdf>)

Chip Name	Year Produced	Number of Transistors
Intel 4004	1971	2,300
Intel 8008	1972	3,500
Intel 8080	1974	4,500
Intel 8086	1978	29,000
Intel 286	1982	134,000
Intel 386	1985	275,000
Intel 486	1989	1,200,000
Pentium	1993	3,100,000

Transistors in INTEL Processors



- 6) Does the graph correctly show this relationship? Defend your answer, including why you did not pick the other options in question 4.
- 7) What major design change did manufacturers make to try and combat the problem of generating too much heat? What is the drawback to this design change?
- 8) What other solutions is industry looking at in order to combat the heat problem?
- 9) Write a paragraph explaining how cell phones have effected chipmakers.