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### PROBLEM #1

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Imagine you place one end of a waterhose in a pool and turn on the tap. Water pours at a constant rate causing a pool to fill at a constant rate.

Plot the pools volume of water over time.



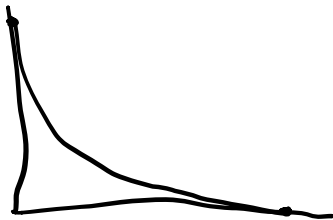
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### PROBLEM #2.

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Water cools down at a rate proportional to its temp. The hotter water is the quicker it will cool down.

Graph the temp. of really initially hot water over time.



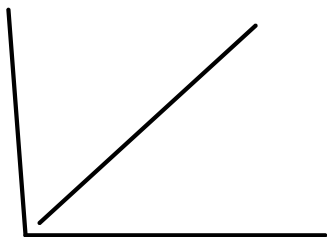
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### PROBLEM #3.

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Gravity accelerates mass in freefall.

Graph the acceleration of a mass over time in freefall.

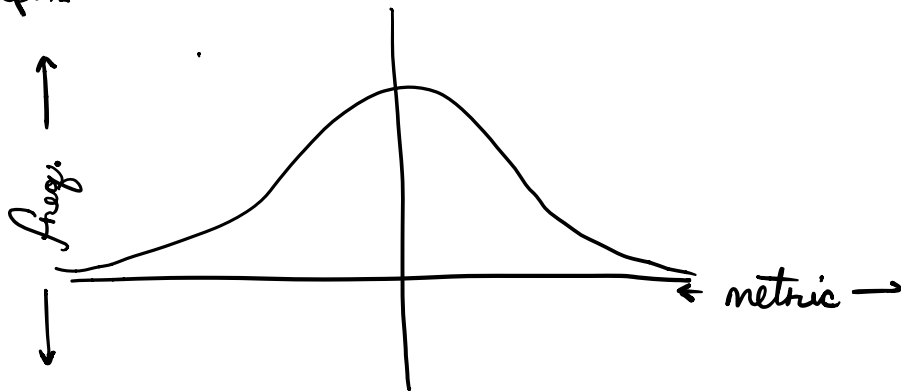


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### PROBLEM #4.

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Given frequencies with a central tendency and rarity in deviation from the centrality of the distrib graph.



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### PROBLEM #5.

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Given a perpetual oscillation with a periodicity of  $\frac{1}{2}s$  graph the oscillation beginning at either terminus of the oscillation.

