# Lesson 1 '01\_intro.ipynb'

## 1. Do you need these for deep learning?

## Lots of math T / F

## Lots of data T / F

## Lots of expensive computers T / F

## A PhD T / F

You need none of these.

## 2. Name five areas where deep learning is now the best in the world.

I. Robotics - handling objects that are challenging to locate (e.g. transparent, shiny, lack of texture) or hard to pick up

II. Computer vision - satellite and drone imagery interpretation (e.g. for disaster resilience); face recognition; image captioning; reading traffic signs; locating pedestrians and vehicles in autonomous vehicles

III. Image generation - Colorizing images; increasing image resolution; removing noise from images; converting images to art in the style of famous artists

IV. Natural Language Processing (NLP) - answering questions; speech recognition; summarizing documents; classifying documents; finding names, dates, etc. in documents; searching for articles mentioning a concept

V. Other applications - financial and logistical forecasting; text to speech; much much more..

## 3. What was the name of the first device that was based on the principle of the artificial neuron?

Perceptron