Olympic Records Niharika Paul:

Graph 1:
The 100m men's.
The unit on Y axis is seconds.

Graph 2:
Long jump men's.
The unit on Y axis is metres.

Graph 3:
Marathon women's.
The unit on Y axis is hours.

Graph 4:
High jump men's.
The unit on Y axis is metres.

Graph 5:
Javelin men's
The unit on Y axis is metres

Graph 6.
High jump women's
The unit on Y axis is metres.

Graph 7.
Decathalon
The unit on Y axis is points.

Graph 8:
3000m women's
The unit on the Y axis is hours.

Graph 9:
400 m men's
The unit on the Y axis is seconds.

Graph 10:
100m women's
The unit on the Y axis is seconds.

My model assumption is that progress increases with ~~time~~ year or progress is an increasing function of year. If score is a decreasing function of year it is a decreasing function of progress and similarly if score is an ~~decreasin~~ increasing function of year it must be an increasing function of progress.

In the javelin and decathlon the graphs are not monotonically decreasing or increasing this could be because:
1) The way people calculated the ~~number of points~~ score (S) on the performance ($P \in \mathbb{R}$) of an athelete might've changed in the year ($Y \in \mathbb{Z}^+$) y.
~~Mathematically speaking:~~
~~$Y = f(S)$~~

2) Another reason might be that the performance of ~~on~~ the athelates worsens in year y.