

PRACTICE (well, it is supposed to make you perfect)

The inappropriately named Irish Elk (it was neither Irish nor an Elk; Gould 1974) was among the largest deer species ever to have lived. The gigantic antlers on these cervines, spanning between 3 and 3.5 metres above large stags' heads, were the subject for conjecture by some evolutionary biologists during the early 20th century. These scientists thought that Irish Elk antlers became so large (presumably as a consequence from increased body size) that these formidable beasts became extinct ... KERPLUNK!

The data below comprise measurements for antler length AL and shoulder height SH (which is used traditionally as a metric for size because it can be measured accurately) for some extant deer species (*i.e.*, deer species that are alive and functioning well today).

Please use the data to answer the following questions:

1. Please describe how deer antlers scale with size (*i.e.*, provide an equation and interpret it).
2. A typical Irish Elk might have been characterised by SH = 1.6 m. Now that you are a certified 'allometrician,' you can determine whether Irish Elks' antlers *were* too big for their size! Do so. Please show your reasoning!

AL [mm]	SH [mm]
323.70	406.40
511.16	533.40
828.80	711.20
1148.44	863.60
1446.15	990.60
1703.93	1092.20
1771.03	1117.60
2576.53	1397.00
2899.06	1498.60
3236.81	1600.20
3499.93	1676.40