Read each problem very carefully before starting to solve it. Each problem is worth 10 points. It is necessary to show all your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. The following table gives, for a certain man, his weight $W=W(t)$ in pounds at age $t$ in years:

| $t=$ Age in years | $W=$ Weight in pounds |
| ---: | ---: |
| 4 | 36 |
| 8 | 54 |
| 12 | 81 |
| 16 | 128 |
| 20 | 156 |
| 24 | 163 |

(a) Make a table showing, for each of the 4 -year periods, the average yearly rate of change in $W$.
(b) Describe in general terms how the mans gain in weight varied over time. During which 4 -year period did the man gain the most in weight?
(c) Estimate how much the man weighed at age 30.
(d) Use the average rate of change to estimate how much he weighed at birth. Is your answer reasonable?

