Answer on question #54917, Physics / Astronomy — Astrophysics

Question Find the apparent magnitude of the star Vega if its absolute magnitude is +0.3 and its parallax angle p = 0."123.

Solution Distance in parsecs is

$$d = \frac{1}{0.123} \approx 8.13\,pc$$

The absolute magnitude then is

$$M = m - 5((\log_{10} d) - 1) \approx 0.75$$