

73. (a) Eq. 34-5 gives $E = cB$, which relates the field values at any instant – and so relates rms values to rms values, and amplitude values to amplitude values, as the case may be. Thus, $E_{\text{rms}} = cB_{\text{rms}} = 16.8 \text{ V/m}$. Multiplying by $\sqrt{2}$ yields the electric field amplitude $E_m = 23.7 \text{ V/m}$.
- (b) We use Eq. 34-26:

$$I = \frac{1}{\mu_0 c} E_{\text{rms}}^2 = 0.748 \text{ W/m}^2 .$$