

**M1.** (a) use of  $z = v/c$

to give  $v = zc = 0.057 \times 3 \times 10^8 \checkmark$

$$= 1.71 \times 10^7 \text{ms}^{-1} = 1.71 \times 10^4 \text{kms}^{-1}$$

use of  $v = Hd$

to give  $d = v/H = 1.71 \times 10^4 / 65 \checkmark$

$$= 263 \checkmark \text{ Mpc} \checkmark$$

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(b) (Strong) radio sources  $\checkmark$

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[5]