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$$(36) \quad T = 3.05 \quad f = \frac{1}{T} = \frac{1}{3.05} = 0.33 \text{ Hz}$$

$$v = \lambda f = (6.5 \text{ m})(0.33 \text{ Hz}) = \underline{2.1 \text{ ms}^{-1}}$$

$$(37) \quad v = \lambda f$$
$$\lambda = \frac{v}{f} = \frac{343 \text{ ms}^{-1}}{262 \text{ Hz}} = \underline{1.31 \text{ m}}$$

$$(38) \quad (a) \quad 550 \text{ kHz} \quad \lambda = \frac{v}{f} = \frac{3 \times 10^8 \text{ ms}^{-1}}{550 \times 10^3 \text{ Hz}} = \underline{550 \text{ m}}$$

$$1600 \text{ kHz} \quad \lambda = \frac{v}{f} = \frac{3 \times 10^8 \text{ ms}^{-1}}{1600 \times 10^3 \text{ Hz}} = \underline{190 \text{ m}}$$

$$(b) \quad 88.0 \text{ MHz} \quad \lambda = \frac{v}{f} = \frac{3 \times 10^8 \text{ ms}^{-1}}{88 \times 10^6 \text{ Hz}} = \underline{3.41 \text{ m}}$$

$$108 \text{ MHz} \quad \lambda = \frac{v}{f} = \frac{3 \times 10^8 \text{ ms}^{-1}}{108 \times 10^6 \text{ Hz}} = \underline{2.78 \text{ m}}$$