

LEMBAR KERJA PESERTA DIDIK PIPA ORGANA TERBUKA

Berapakah frekuensi nada dasar, nada atas pertama, nada atas kedua dan nada atas ketiga suatu pipa organa terbuka yang panjangnya 1 meter, bila cepat rambat bunyi di udara 344 m/s.

Diketahui:

Panjang pipa (L) =

Cepat rambat bunyi di udara (v) =

Ditanya:

- a) Frekuensi nada dasar (f_0)
- b) Frekuensi nada atas pertama (f_1)
- c) Frekuensi nada atas kedua (f_2)
- d) Frekuensi nada atas ketiga (f_3)

JAWABAN

a) Frekuensi nada dasar (f_0)

n =

$$f_0 = (n + 1) \frac{v}{2L}$$

$$f_0 = (\quad + 1) \frac{\dots\dots\dots}{2 \dots\dots\dots}$$

$$f_0 = (\dots\dots\dots) (\dots\dots\dots)$$

$$f_0 = \dots\dots\dots \text{ Hz}$$

e) Frekuensi nada atas kedua (f_2)

n =

$$f_2 = (n + 1) \frac{v}{2L}$$

$$f_2 = (\quad + 1) \frac{\dots\dots\dots}{2 \dots\dots\dots}$$

$$f_2 = (\dots\dots\dots) (\dots\dots\dots)$$

$$f_2 = \dots\dots\dots \text{ Hz}$$

b) Frekuensi nada atas pertama (f_1)

n =

$$f_1 = (n + 1) \frac{v}{2L}$$

$$f_1 = (\quad + 1) \frac{\dots\dots\dots}{2 \dots\dots\dots}$$

$$f_1 = (\dots\dots\dots) (\dots\dots\dots)$$

$$f_1 = \dots\dots\dots \text{ Hz}$$

e) Frekuensi nada atas ketiga (f_3)

n =

$$f_3 = (n + 1) \frac{v}{2L}$$

$$f_3 = (\quad + 1) \frac{\dots\dots\dots}{2 \dots\dots\dots}$$

$$f_3 = (\dots\dots\dots) (\dots\dots\dots)$$

$$f_3 = \dots\dots\dots \text{ Hz}$$