

Experimental Data

Q3

(a)

(i)

$x = 15.0\text{cm}$

$t_1 = 33.75\text{s}$

$t_2 = 32.09\text{s}$

$t_3 = 34.22\text{s}$

<https://www.youtube.com/watch?v=2ISIJEOo7GA>

(b)

(i)

Choose any 3 readings.

x (cm)	t ₁ (s)	t ₂ (s)	t ₃ (s)
5.2	17.00	17.53	17.50
5.8	19.03	18.28	19.28
10.0	23.69	23.47	22.81
15.0	33.75	32.09	34.22
20.0	43.83	46.79	48.89

(c)

$x = 5.2\text{cm}$

(d)

(i)

$x = 5.2\text{cm}$

$t_1 = 48.12\text{s}$

$t_2 = 48.65\text{s}$

$t_3 = 48.63\text{s}$

(e)

(i) $x = 5.2\text{ cm}$ $y = 4.0\text{ cm}$ $t_1 = 182.15\text{ s}$ $t_2 = 180.67\text{ s}$ $t_3 = 177.22\text{ s}$	(ii) $x = 5.2\text{ cm}$ $y = 8.0\text{ cm}$ $t_1 = 150.22\text{ s}$ $t_2 = 155.55\text{ s}$ $t_3 = 132.22\text{ s}$
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