

i	t (s)	d (m)	t·d (s·m)	t <sup>2</sup> (s <sup>2</sup> )	Residuals		Residuals <sup>2</sup>	$V_o =$ <b>0.674025974 m/s</b>
					$V_o \cdot t$ (m)	$d - V_o \cdot t$ (m)	$(d - V_o \cdot t)^2$ (m <sup>2</sup> )	
1	0	0	0	0	0	0	0	
2	5	3.0	15	25	3.3701	-0.370	0.1369961208	
3	10	7.5	75	100	6.7403	0.760	0.5772052623	
4	15	12.3	184.5	225	10.1104	2.190	4.7943936583	
5	20	15.8	316	400	13.4805	2.319	5.3799898802	
6	25	18.8	470	625	16.8506	1.949	3.7999679541	
7	30	20.2	606	900	20.2208	-0.021	0.0004317760	
8	35	23.3	815.5	1225	23.5909	-0.291	0.0846280992	
9	40	26.6	1064	1600	26.9610	-0.361	0.1303491314	
10	45	29.7	1336.5	2025	30.3312	-0.631	0.3983740934	
11	50	32.1	1605	2500	33.7013	-1.601	2.5641575308	

**n = 11**

Sum==> **6487.5**    **9625**

**17.86649** =SSR  
m<sup>2</sup>

Standard Error in  $V_o = 0.01362446$   
m/s

$$= \sqrt{\frac{SSR}{(n-1) \sum_i t_i^2}}$$

So,  $v_o = 0.674 \pm 0.0272$  m/s

Twice the Standard Error! 