



$$\Delta x = 4.48 \text{ m}$$

$$\theta = \arctan(1/2)$$

$$\theta = 26.5^\circ$$

Times:

1.	3.01 s
2.	1.81 s
3.	1.81 s
4.	1.61 s
5.	3.91 s
6.	2.03 s
7.	2.37 s
8.	1.94 s
9.	2.06 s
10.	2.04 s
11.	2.27 s
12.	1.84 s
13.	2.36 s
14.	2.11 s
15.	1.91 s
16.	1.99 s
17.	2.01 s
18.	1.63 s
19.	2.01 s
20.	1.39 s

avg was 2.21 s

$$L = \frac{1}{2} a t^2$$

$$4.48 = \frac{1}{2} a (4.88)^2$$

$$8.96 = a (4.88)^2$$

$$a = 1.83$$

$$a = g \sin(\theta) - \mu_k (g \cos(\theta))$$

$$1.83 = 9.8 \cdot 0.441 - \mu_k (9.8 \cdot 0.9)$$

$$1.83 = 4.31 - \mu_k \cdot 8.82$$

$$-2.48 = -\mu_k \cdot 8.82$$

$$0.28 = \mu_k$$