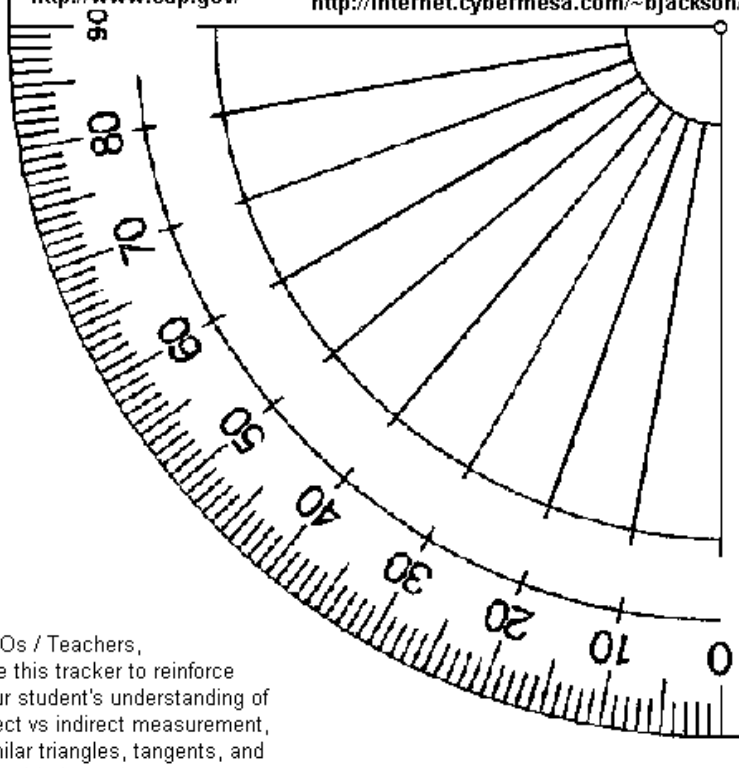
Altitude = Distance to Pad X Tan (angle)

Angle	Tan	Angle	Tan	Angle	Tan	Angle	Tan
1	0.02	21	0.38	41	0.87	61	1.80
2	0.03	22	0.40	42	0.90	62	1.88
3	0.05	23	0.42	43	0.93	63	1.96
4	0.07	24	0.45	44	0.97	64	2.05
5	0.09	25	0.47	45	1.00	65	2.14
6	0.11	26	0.49	46	1.04	66	2.25
7	0.12	27	0.51	47	1.07	67	2.36
8	0.14	28	0.53	48	1.11	68	2.48
9	0.16	29	0.55	49	1.15	69	2.61
10	0.18	30	0.58	50	1.19	70	2.75
11	0.19	31	0.60	51	1.23	71	2.90
12	0.21	32	0.62	52	1.28	72	3.08
13	0.23	33	0.65	53	1.33	73	3.27
14	0.25	34	0.67	54	1.38	74	3.49
15	0.27	35	0.70	55	1.43	75	3.73
16	0.29	36	0.73	56	1.48	76	4.01
17	0.31	37	0.75	57	1.54	77	4.33
18	0.32	38	0.78	58	1.60	78	4.70
19	0.34	39	0.81	59	1.66	79	5.14
20	0.36	40	0.84	60	1.73	80	5.67

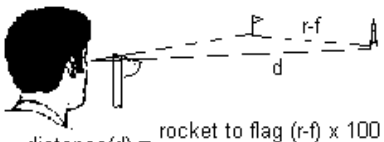
Roll this tab inside sighting tube and glue along edge.

http://www.cap.gov/

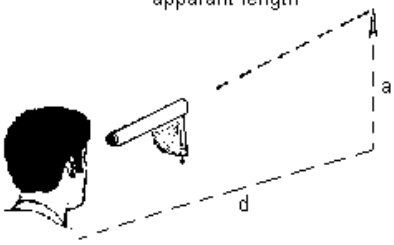
http://internet.cybermesa.com/~bjackson/



Altitude Tracker



distance(d) = $\frac{\text{rocket to flag (r-f) x 100}}{\text{apparant length}}$



altitude (a) = distance (d) X tangent (angle)

Apparant Length

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

AEOs / Teachers,
Use this tracker to reinforce your student's understanding of direct vs indirect measurement, similar triangles, tangents, and other Mathematics concepts.

Go to internet.cybermesa.com/~bjackson for assembly instructions and lesson plans on using rocketry and altitude tracking to teach Math principles.

This altitude tracking sight was designed by
William H. Jackson, Maj, CAP

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 3

34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 6

67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100