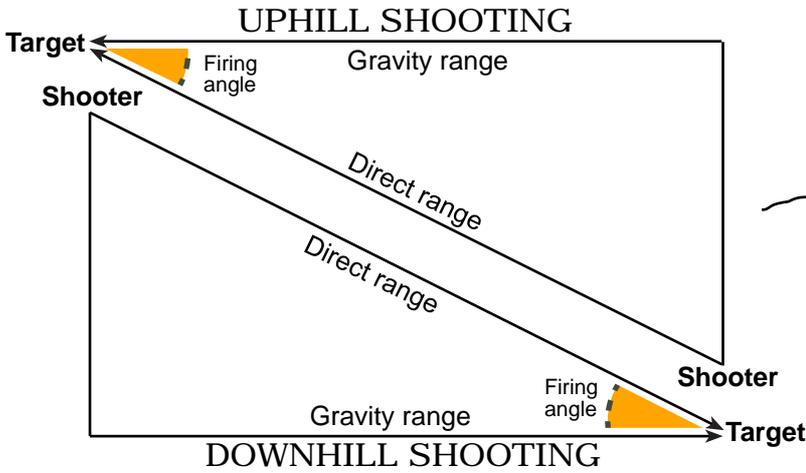


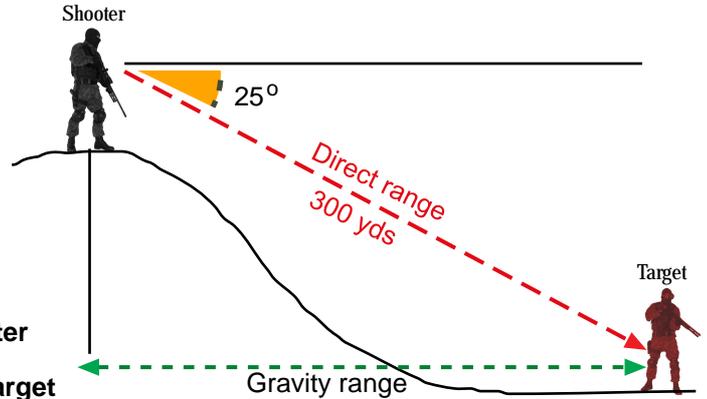
# ANGLE FIRING

Gravity range / Horizontal distance = the distance gravity affects the bullet



Same rules apply for both downhill and uphill shooting

## SAMPLE SHOOTING SITUATION



### COMPENSATION FOR ANGLE

$$300 \text{ yds} * .91 = 273 \text{ yds}$$

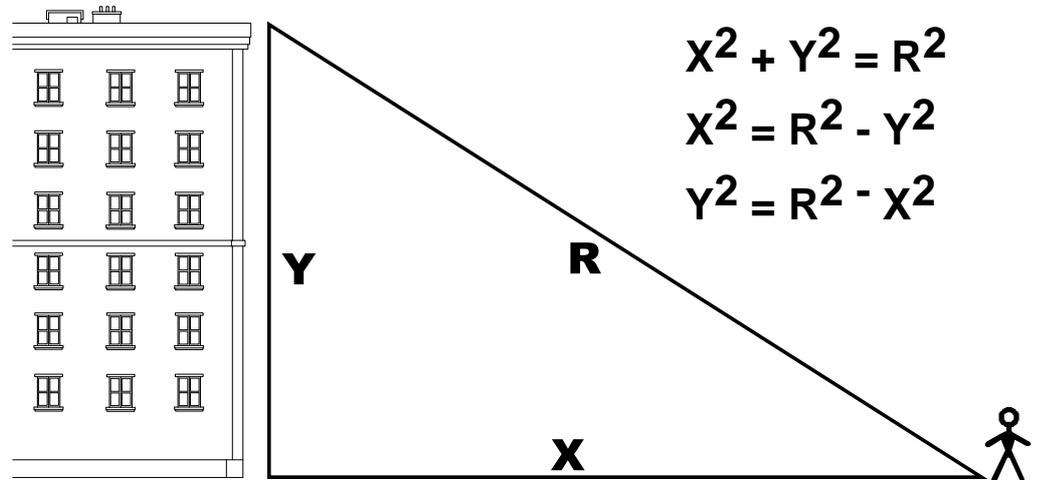
Direct range / Slope distance      Multiplier for 35 degree angle      Gravity range / Horizontal distance

To obtain gravity range multiply the direct range by the appropriate multiplier.

Degree of angle	Multiplier
0	1.00
2.5	1.00
5	.99
7.5	.99
10	.98
12.5	.97
15	.96
17.5	.95
20	.94
22.5	.93
25	.91
27.5	.89
30	.87
32.5	.85
35	.82
37.5	.80
40	.77
42.5	.74
45	.70
47.5	.67
50	.64
52.5	.61
55	.57
57.5	.54
60	.50
62.5	.46
65	.42
67.5	.38
70	.34
72.5	.30
75	.26
77.5	.22
80	.17
82.5	.13
85	.09
87.5	.05
90	.00

## PYTHAGOREAN THEOREM $X^2 + Y^2 = R^2$

The Pythagorean Theorem can be used to calculate distances.



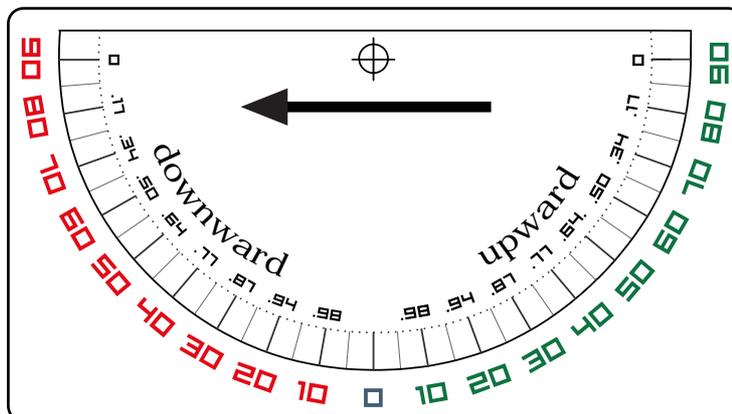
$$X^2 + Y^2 = R^2$$

$$X^2 = R^2 - Y^2$$

$$Y^2 = R^2 - X^2$$

Example:  $Y = 20 \text{ yds}$ ,  $R = 100 \text{ yds}$

$$X^2 = R^2 - Y^2 = 100^2 - 20^2 = \sqrt{9600} = 98$$



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