Glide Slope Ratio

The Glide Slope Ratio is a number that indicates how well your designed shoebox glider flies through the air in terms of its forward distance vs. its drop in altitude.
Glide Ratio = Horizontal Distance divided by the Change in Altitude.
Another way to think of this is to ask, how far did the glider travel forward for every foot it dropped in altitude?

For example: You released your Shoebox Glider from atop a 10-foot high ladder. Your glider traveled 50 feet before landing on the floor.
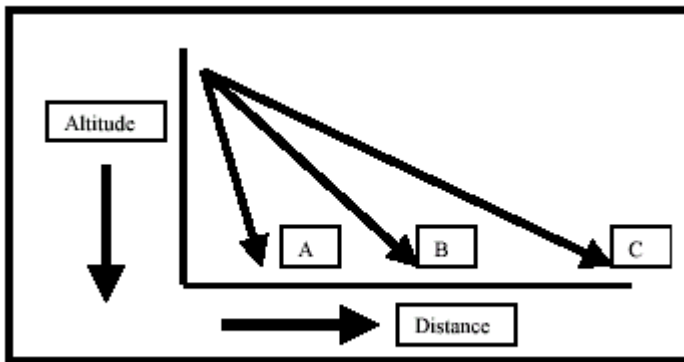
Horizontal Distance = 50 feet
Change in Altitude   = 10 feet
Dividing Distance (50) by Altitude (10) = 5   The Glide Ratio is 5
50/10 = 5/1 = 5 The glider flew forward 5 feet for every 1-foot drop in altitude.

Graphed examples of Glide Slope Ratios and their interpretations:

Glide Slope "A" would represent a good Glide-Slope Ratio
Distance = 20 ft.   Altitude   = 10 ft.
Distance (20) divided by Altitude (10) = 2/1 = Glide Ratio of 2.0
The glider flew forward two feet for every one-foot drop in altitude.

Glide Slope "B" would represent a better Glide-Slope Ratio
Distance = 50 ft.   Altitude   = 10 ft.
50 divided by 10 = 5/1 = Glide Ratio of 5.0
The glider flew forward five feet for every one-foot drop in altitude

Glide Slope "C" would represent the best Glide-Slope Ratio
Distance = 100 ft.   Altitude   = 10 ft.
100 divided by 10 = 10/1 = Glide Ratio of 10.0

The glider flew forward 10 feet for every one-foot drop in altitude!
Developing and Understanding a Principle of Lift

For example:

You released your Shoebox Glider from atop a 10-foot high ladder. Your glider traveled 50 feet before landing on the floor.

Horizontal Distance = 50 feet

Change in Altitude   = 10 feet

Dividing Distance (50) by Altitude (10) = 5   The Glide Ratio is 5

50/10 = 5/1 = 5 The glider flew forward 5 feet for every 1-foot drop in altitude.