

## Critical Speed Formula

critsped.xls  
version 3.0  
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g	32.17	ft/s <sup>2</sup>
friction coeff	0.60	
cross slope, $\alpha$	0.00	deg
cross slope	0.000	rad
cross slope, %	0.00	
$\tan\alpha$	0.000	
conv	1.47	

Brach Engineering  
**VCRware**<sup>TM</sup>  
Vehicle Crash Reconstruction Software  
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US

c, chord	50.00	ft
h, middle ordinate	1.00	ft
<b>R, radius</b>	<b>313.0</b>	<b>ft</b>

*radius from chord & ordinate*

radius	313.0	ft	radius	0.059	mi
friction coeff	0.60		speed	53.0	mph
speed	77.7	ft/s			

$x_1$	1.00	$y_1$	5.00
$x_2$	2.00	$y_2$	15.00
$x_3$	3.00	$y_3$	48.80
	<b>R, radius</b>	<b>313.0</b>	<b>ft</b>

*radius from three points*

radius	313.0	ft	radius	0.059	mi
friction coeff	0.60		speed	53.0	mph
speed	77.7	ft/s			