

Football Fever!

The National Football League (NFL™) has developed an algorithm for rating the passing performance of any player who attempts a pass during a season. Since the quarterback (QB) position requires passing, the system is most often used to rate QB performance. There are four categories used in a passer rating:

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|---|--------------------------------------|
| <i>Percent of passes completed</i> | <i>Average yards gained per pass</i> |
| <i>Percent of passes for touchdowns</i> | <i>Percent of passes intercepted</i> |

Research the data of four QB's of your choice from the current season from the website <http://www.pro-football-reference.com>. You must begin with week 1 and update the data from each week of this season for 8 weeks (not including bye weeks). At the end of the 8th week analyze the data from each QB to determine the passer rating of each QB. You may use a calculator but **MUST** show **ALL** of your work and be prepared to explain your work. Accuracy is required so miscalculations will cost you points. It may help to use an excel spreadsheet so you only have to enter the formulas once.

ALL WORK MUST BE SHOWN AND LABELED TO RECEIVE CREDIT!

**You may use a spreadsheet but the formulas/equations MUST be embedded in the appropriate cells.
(if you're not sure how to do this ask Mr. Hilburt)**

Passer Rating Formula

- 1) Calculate the percent of completed passes, or pass completions out of pass attempts.
Subtract 30 from the percent, then multiply by .05
~if the result is less than zero award zero points
- 2) Calculate the average yards gained per pass, or pass yardage out of pass attempts.
Subtract 3 from the average and multiply by .25
~if the result is less than zero award zero points
- 3) Calculate the percent of touchdown passes, or touchdown passes out of pass attempts.
Multiply the percent by .2
- 4) Calculate the percent of interceptions, or interceptions out of pass attempts.
Multiply the percent by .25 and subtract that product from 2.375
~if the result is less than zero award zero points
- 5) Determine the overall passer rating.
Find the sum of the values from steps 1-4.
Divide the sum by 6 and multiply by 100

Your final results may be written in the table below.

Player Name	Pass Attempts	Passes Completed	Pass Yardage	Touchdown Passes	Interceptions