Formula for NFL Passer Rating

The NFL passer rating formula includes four variables: completion percentage, yards per attempt, touchdowns per attempt, and interceptions per attempt.

Each of those variables is scaled to a value between 0 and 2.375, with 1.0 being statistically average (based on league data between 1960–1970).

The four separate calculations can be expressed in the following equations:

$$a = \left(\frac{COMP}{ATT} - .3 \right) x\, 5$$

$$b = \left(\frac{YDS}{ATT} - 3 \right) x\, .25$$

$$c = \left(\frac{TD}{ATT} \right) x\, 20$$

$$d = 2.375 - \left(\frac{INT}{ATT} x\, 25 \right)$$

where
ATT = Number of passing attempts
COMP = Number of completions
YDS = Passing yards
TD = Touchdown passes
INT = Interceptions

If the result of any calculation is greater than 2.375, it is set to 2.375. If the result is a negative number, it is set to zero.
Then, the above calculations are used to complete the passer rating:

$$\text{Passer Rating} = \left(\frac{a+b+c+d}{6} \right) x\, 100$$

Passer rating in the **NFL** is on a scale from 0 to 158.3.

Worksheet on NFL Passer Rating

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Use the formula for the NFL Passer Rating to fill in the missing entries in the chart below.
Show your algebra.

Name	COMP	ATT	YDS	TD	INT	a	b	c	d	RATING
Aaron Rodgers GB 2011	343	502	4,643	45	6					
Alex Smith KC 2017	341	505	4,042	26	5					
Carson Wentz PHI 2017	265	440	3,296	33	7					
Nick Foles PHI 2017	57	101	537	5	2					
Sammy Baugh WAS 1946	87	161	1,163	8	17					
Dan Marino MIA 1984	362	564	5,084	48	17					
Brett Favre GB 1992	302	471	3,227	18	13					
Roger Staubach DAL 1978	231	413	3,190	25						84.9
Archie Manning NO 1978	291	471	3,416		16					81.7
Peyton Manning DEN 2013		659	5,477	55	10					115.1
Tom Brady NE 2017	385	581		32	8					102.8