The Test that Wasn’t a Test Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For questions 1-5, consider the following table:

|  |  |  |  |
| --- | --- | --- | --- |
|  | A | B | C |
| 1 | **fullname** | **fantasyPoints** | **NFLprojection** |
| 2 | Frank Gore | 15.2 | 22.4 |
| 3 | Doug Martin | 12.7 | 14.3 |
| 4 | Reggie Bush | 31.7 | 23.3 |
| 5 | Jamaal Charles | 29.0 | 18.1 |
| 6 | Arian Foster | 6.8 | 8.0 |
| 7 | Darren Sproles | 12.8 | 10.4 |

1. Write an AND formula that returns TRUE or FALSE to determine if Frank Gore’s fantasy points are greater than Doug Martin’s and less than Reggie Bush’s points.

=AND(B2>B3,B2<B4)

1. Write a formula that returns TRUE if Arian Foster scored more fantasy points than his NFL projection.

=B6>C6

1. Write a formula that determines whether the sum of these 6 players’ fantasy points is greater than or equal to 100 (if so, it’d return TRUE, otherwise FALSE).

=SUM(B2:B7)>=100

1. Write a formula that will determine whether these 6 players, in total, scored more than, or less than, their total projected points (if so, it’d return TRUE, otherwise FALSE).

=SUM(B2:B7)>SUM(C2:C7)

1. Write a formula that evaluates whether the standard deviation of actual fantasy points scored (=STDEV()) is greater than or less than the standard deviation of projected points for these 6 players (if so, it’d return TRUE, otherwise FALSE).

=STDEV(B2:B7)>STDEV(C2:C7)

For questions 6-10, consider the following table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | A | B | C | D | E |
| 1 | **fullname** | **passingYds** | **passingTDs** | **rushingYds** | **fantasyPoints** |
| 2 | Cam Newton | 253 | 1 | 71 | 25.22 |
| 3 | Michael Vick | 371 | 1 | 34 | 22.24 |
| 4 | Tom Brady | 316 | 1 | -1 | 14.54 |
| 5 | Andy Dalton | 318 | 3 | 4 | 23.12 |
| 6 | Andrew Luck | 224 | 2 | 6 | 21.48 |
| 7 | Eli Manning | 510 | 3 | -2 | 26.20 |

1. Write an IF statement that will return “PASS MASTER” if Eli Manning’s passing yards are more than 15 times his fantasy points. Otherwise, it should return “STANDARD QB.”

=IF(B7>E7\*15,"PASS MASTER","STANDARD QB")

1. Write an IF statement that evaluates whether Cam Newton got more points from his rushing yards than his passing yards (1 point for every 10 rush yards; 1 point for every 25 passing yards). If so, it should return “BETTER AS A RB” and if not, it should return “OKAY YOU CAN THROW”.

=IF(D2/10>B2/25,"BETTER AS A RB","OKAY YOU CAN THROW")

1. Write an IF statement that returns “TOMMY TOMMY WOOPS” if Tom Brady had the least fantasy points of the 6 quarterbacks listed above. Otherwise it should return his fantasy points.

=IF(E4=MIN(E2:E7),"TOMMY TOMMY WOOPS",E4)

Qualifying for the NFL retirement pension is a big deal, because it can support a player well beyond his days on the gridiron are over. Here’s a dramatically oversimplified view of how the current NFL’s pension plan works:

The NFL's Post-Career Financial Plan

1. Severance Pay Plan: A player with two credited NFL seasons (on the active roster, injured reserved or physically unable to perform list for three games in each of two seasons), receives $10,000 per year for every year played between 1993 and 1999 and $12,500 per year for every year from 2000 on.

2. Second-Career Savings Plan or 401(k): A player with two credited seasons will receive a $2 match for every $1 contributed to the plan up to a maximum club contribution of $20,000 per year.

3. Bert Bell/Pete Rozelle Retirement Plan (pension): A player with at least three credited seasons earns a benefit credit for every season he plays ($5,000 per year).

Consider these hypothetical players:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A | B | C | D |
| 1 | **Name** | **Seasons93-99** | **Seasons2000+** | **401kConts** |
| 2 | Ol’Timer | 6 | 0 | $0 |
| 3 | Rickety | 4 | 0 | $20,000 |
| 4 | Fogey | 2 | 2 | $10,000 |
| 5 | Talentino | 0 | 2 | $40,000 |
| 6 | Buster | 0 | 1 | $0 |
| 6 | MoneyBags | 0 | 6 | $120,000 |

The column “D” (401kConts) shows the contributions each player made to his own 401(k) plan (not including NFL-matching contributions).

1. Using the information above, write a formula that will calculate the annual total income from the NFL’s post-career financial plan for Fogey. Imagine that the annual income from the 401(k) is 1/20th the total value of the 401(k) account.

=(B4\*10000)+(C4\*12500)+((D4+(D4\*2))/20)+(5000\*SUM(B4:C4))

Imagine that we invented new rules for Fantasy Football, and that the points per receiving yard increased as a player accrued more and more receiving yards. For instance, consider the following:

|  |  |  |
| --- | --- | --- |
|  | A | B |
| 1 | Points/yard for the first 25 receiving yards | 0.10 |
| 2 | Points/yard for the next 26-50 receiving yards | 0.15 |
| 3 | Points/yard for receiving yards > 50 | 0.20 |
| 4 |  |  |
| 5 | 113 |  |

1. Write a formula that will calculate the number of fantasy points earned, corresponding to the number of receiving yards given in cell A5.

Note: This is going to be a big formula that uses nested IF functions. A nested IF function can be written with this syntax:

=IF(condition-to-test, IF(condition-to-test, value-if-condition-true, value-if-condition-false),

value-if-condition-false)

=IF(A5<=25,A5\*B1,IF(A5<=50,2.5+((A5-25)\*0.15),6.25+((A5-50)\*0.2)))