

Name: _____ Class: _____ Due Date: _____

Are You Ready for Some Football?



When solving the following problem, be sure to:

- 1) Restate the Question
- 2) State your answer in a complete sentence
- 3) Show work and/or explain solution strategy

It's the start of a new football season and my favorite team, the Algenauts, is looking good! They won their first game by beating their arch-rivals, the Geometers, 28-27 on a last-second play.

In the course of the game they piled up a lot of running yards, divided among four players:

- The bruising fullback, Vernon Variable, accounted for a chunk of those yards.
- The star halfback, Reggie Root, ran for 15 less than three times as many yards as Vernon did.
- The speedy wide-out, Larry Linear, only ran once but he picked up 11 more yards than Vernon's total on that play, a fancy reverse that went for a touchdown.
- The crafty quarterback, Quentin Quadratic, ran for a total of 18 yards on a variety of scrambles.

If the Algenauts ran for 229 total yards, how many yards did each of the four players gain?

Note: You should write and solve an equation and use at least one variable in your solution.

Extra: During the game, $\frac{7}{12}$ of the Algenauts' plays were running plays. 35% of their plays were passing plays. They also had four plays when they punted. How many total plays did the Algenauts have during the game?

Please answer the problem on a separate piece of paper. You must include all your calculations and an explanation of how you got your answer. Your paper will be scored in the following way:

- 4 The answer and the bonus are correct, you have included all your calculations, and the explanation is thorough and understandable.
- 3 The answer is correct, you have included all your calculations, and the explanation is complete and clear to the reader.
- 2 The answer is missing one of the items mentioned above.
- 1 The answer is incorrect, and the explanation or calculations are poor or missing.
- 0 Minimal or no effort was made to solve the problem.
- All late work is marked down a grade.