

Real-Life Application: When Will I Ever Use This?

For use with pages 100–107

Magazine Sales

GRIT, an American family magazine since 1882 is “. . . dedicated to bringing readers good news. GRIT focuses not on age or abilities, but on attitude – taking a positive approach to life. In each issue, we celebrate our readers’ courage, dedication and determination to make a difference.” Issues depict a view of life in the United States, both past and present, including recipes, history and human-interest stories.

A German immigrant named Dietrick Lamade first published GRIT in December of 1882. In the early years, when it almost folded, Dietrick sold magazines by introducing prize drawings to its readers. GRIT survived and thrived because of Dietrick’s “good news” format, which appealed to rural tastes and traditions. He also enlisted the help of a nationwide network of young carriers.

Originally published and distributed throughout Pennsylvania, GRIT is now owned by Ogden Publications, whose offices are located in Topeka, Kansas.

1. You sell GRIT magazines and GRIT magazine subscriptions. You earn \$.55 for each individual magazine you sell and \$.80 for each magazine sold in a yearly subscription (26 magazines). During the summer, between subscriptions and individual copies, you sell 878 magazines. The amount of money that you can earn is given by the function $S = 0.55n + 0.80(878 - n)$, where S is the profit (in dollars) and n is the number of individual magazines sold. Simplify this function.
2. If you sell 72 individual magazines, how much money did you make?
3. Your friend sells magazines year-round. Your friend sold a combined total of 2890 individual and subscription magazines. Write a function that represents the amount of money your friend can earn. Simplify this function.
4. If your friend sells 186 individual magazines, how much did he make?