

Word Problem Review

Some of the best vacuum cleaners are only sold door-to-door. The salespeople demonstrate the cleaning ability of the appliance in people's homes to encourage them to make the purchase. Michael sells vacuum cleaners door-to-door. He earns a base salary plus a commission on each sale. His weekly earnings depend on the number of vacuum cleaners he sells as shown in the table below.

1) Assume that Michael's weekly pay is a linear function of the number of vacuum's sold, and calculate the missing entries in the next table.

Number of Vacuum Cleaners sold in a week	0	2	4	6	10	20	21
Weekly Earnings (in dollars)		600	900	1,200			

2) Determine the rate of change in earnings as sales increase (pay per vacuum).

3) What would Michael's pay be for a week if he does not sell any vacuums?

4) Write a Next = Now rule that shows how Michael's pay changes with each vacuum sell.

5) Write a rule in slope-intercept form that shows how Michael's weekly earnings can be calculated from the number of vacuum cleaners sold in a week.