

## Linear programming

A dealer wishes to purchase a number of fans and sewing machines. He has only ₹ 5,760 to invest and has a space for at most 20 items. A fan costs him ₹ 360 and a sewing machine ₹ 240. His expectation is that he can sell a fan at a profit of ₹ 22 and a sewing machine at a profit of ₹ 18. Assuming that he can sell all the items that he can buy, how should he invest his money in order to maximise the profit ? Formulate this as a linear programming problem and solve it graphically.