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Lecture
Lecture questions due Oct 11, 2016 at 19:30 IST

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PART A

(1/1 point)
The objective function is " $3R + 2G$." Suppose that the objective function is changed to $3.001R + 2.001G$. Which of the following is true:

- (selected) The optimal solution stays the same. ✔
- The optimal objective value stays the same
- The optimal objective value decreases

EXPLANATION

Solution

The slope of the isocost line changes just a little bit. But the optimal solution stays the same.

You have used 1 of 2 submissions

PART B

(1/1 point)

The first constraint is $R + G \leq 8$. Suppose it is changed to $R + G \leq 7.9$. Which of the following is true:

- The optimal solution stays the same.
- The optimal objective value stays the same
- The optimal objective value decreases ✔

EXPLANATION

Solution.

The optimal objective value decreases. The optimal solution for the revised problem occurs when $R = 5$ and $R + G = 7.9$. That is, $R = 5$ and $G = 2.9$. And $z = 3R + 2G = 20.8$.

You have used 1 of 2 submissions