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Unit 8 - Week 6

Assignment 6

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-03-13, 23:59 IST.

Goldilocks needs to find at least 12 lb of gold and at least 18 lb of silver to pay the monthly rent. There are two mines in which Goldilocks can find gold and silver. Each day that Goldilocks spends in mine 1, she finds 2 lb of gold and 2 lb of silver. Each day that Goldilocks spends in mine 2, she finds 1 lb of gold and 3 lb of silver. Formulate an LP to help Goldilocks meet her requirements while spending as little time as possible in the mines.
Consider the variables x, as the number of days in mine 1 and y as the number of days in mine 2.

1) Choose the correct constraint equation for the Gold from below. ***2 points***

- 2x+3y<=18
- 2x+3y>=18
- 2x+y>=12
- 2x+y<=6

No, the answer is incorrect.
Score: 0

Accepted Answers:
2x+y>=12

2) Choose the most appropiate constraint for silver from the options given below. ***2 points***

- 2x+y>=12
- 2x+y<=4
- 2x+3y<=5
- 2x+3y>=18

No, the answer is incorrect.
Score: 0

Accepted Answers:

x+y<=30

x+y>=60

No, the answer is incorrect.
Score: 0

Accepted Answers:
x+y<=30

4) As per the question, the objective function should maximize the sum of variables. Is the statement above true or false? ***2 points***

True

False

No, the answer is incorrect.
Score: 0

Accepted Answers:
False

5) For the optimization problem, develop the mathematical model and encode it into the microsoft excel spreadsheet.
What is the objective function value (Considering the continuous nature of variables)? ***2 points***

x=4.5, y=3

x=4, y=4

x=7, y=10

x=2, y=5

No, the answer is incorrect.
Score: 0

Accepted Answers:
x=4.5, y=3

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