If the shadow price for a resource is 0 and 150 units of the resource are added what happens to the objective function value?

- a. increases more than 0 but less than 150
- b. increase by 150
- c. no increase
- d. increases but by an unknown amount

Clear my choice

The allowable decrease for a changing cell (decision variable) is

- a. the amount by which objective function coefficient can decrease without changing the final optimal solution.
- b. the amount by which the constraint coefficient can decrease without changing final optimal solution.
- c. an indication of how many more units to produce to maximize profits.
- d. an indication of how much to charge in order to get the optimal solution.

Clear my choice

When a solution is degenerate the reduced costs for the changing cells (variable cells)

- a. may not be unique.
- b. is equal to infinity.
- c. is always equal to zero.
- d. may be set to any value the manager needs.

Clear my choice

When a manager considers the effect of changes to an LP model's coefficients he/she is performing

- a. sensitivity analysis.
- b. coefficient analysis.
- c. random analysis.
- d. qualitative analysis.

Clear my choice

Binding constraints have

- a. resources in surplus.
- b. positive slack.
- c. zero slack.
- d. negative slack.

Clear my choice

What is the significance of an absolute cell reference in Excel?

- a. It is the only formula used to refer to a cell on another spreadsheet
- b. The cell reference changes if the formula containing the reference is copied to another location
- c. The cell will always contain the absolute value of any number that is entered into it
- d. The cell reference will not change if the formula containing the reference is copied to another location

Clear my choice

A binding less than or equal to (=) constraint in a maximization problem means

- a. another constraint is limiting the solution.
- b. the requirement for the constraint has been exceeded.
- c. that all of the resource is consumed in the optimal solution.
- d. it is not a constraint that the level curve contacts with.

Clear my choice

The solution to an LP problem is degenerate if

- a. the constraints have an allowable increase or allowable decrease of zero.
- b. the shadow prices of any of the constraints have an allowable increase or allowable decrease of infinity.
- c. the objective coefficients of any of the variables have an allowable increase or allowable decrease of zero.
- d. the shadow prices of any of the constraints have an allowable increase or allowable decrease of zero.

Clear my choice

The shadow price of a nonbinding constraint is

- a. indeterminate
- b. positive
- c. zero
- d. negative

Clear my choice

When the allowable increase or allowable decrease for the objective function coefficient of one or more variables is zero it indicates (in the absence of degeneracy) that

- a. the problem is infeasible.
- b. alternate optimal solutions exist.
- c. no optimal solutions can be found.
- d. there is only one optimal solution.

Clear my choice