1

Is x% of x% of y equal to x% less than y ?

(1) x(x + 100) = 10,000
(2) y(y + 1) = 1

2

Jack and Mark both received hourly wage increases of 6 percent. After the increases, Jack' hourly wage was how many dollars per hour more than Mark's?

(1) Before the wage increases, Jack's hourly wage is $5 per hour more than Mark's
(2) Before the wage increases, the ratio of the Jack's hourly wage to Mark's hourly wage is 4 to 3

3

Martha bought an armchair and a coffee table at an action and sold both items at her store. Her gross profit from the purchase and sale of the armchair was what percentage greater than her gross profit from the purchase and sale of the coffee table?

(1) Martha paid 10% more for armchair than for the coffee table.

(2) Martha sold the armchair for 20% more than she sold the coffee table.

4

A certain salesman's yearly income is determined by a base salary plus a commission on the sales he makes during the year. Did the salesman's base salary account for more than half of the salesman's yearly income last year?

(1) If the amount of the commission had been 30 percent higher, the salesman's income would have been 10 percent higher last year.

(2) The difference between the amount of the salesman's base salary and the amount of the commission was equal to 50 percent of the salesman's base salary last year.

5

Whenever Sally takes a cab and the fare is between $15 and $65, she calculates the dollar amount of the tip as 3 times the tens digit of the fare. If Sally's most recent fare was between $15 and $65, was the tip Sally calculated on this bill greater than 25 percent of the amount of the bill?

(1) The amount of the fare was between $17 and $40.
(2) Sally calculated a tip of $3.