

# Knowledge Check 5: Transactions and Concurrency Control

Due	No due date	Points	0	Questions	3
Time Limit	None	Allowed Attempts	Unlimited		

Take the Quiz Again

## Attempt History

	Attempt	Time	Score
LATEST	<u>Attempt 1</u>	2 minutes	0 out of 0

Submitted Feb 7 at 7:47pm

Question 1

0 / 0 pts

What is the result of the following database transaction if the initial values of both A and B is 100?

```
BEGIN  
  
A=A+100  
  
B=A+100  
  
END
```

A=100, B=200

A=200, B=300

A=200, B=200

The new value of A is 200, which is found by adding 100 to its initial value. The new value of B is then found as 300 by adding 100 to the new value of A.

Correct!

☐ A=200, B=100

## Question 2

0 / 0 pts

Consider the following two database transactions with initial values of A=500 and B=500:

**T1:  $A=A+100$ ,  $B=A-100$**

**T2:  $A=A*1.06$ ,  $B=B*1.06$**

Assuming T1 arrives first, what will be the final values of A and B if the two transactions are processed using a serial schedule?

Not Answered

☒ A=630, B=530

This is not correct; T1 must be processed first.

☐ A=636, B=568.16

☐ A=630, B=561.80

Correct Answer

☐ A=636, B=530

## Question 3

0 / 0 pts

Consider the following two database transactions with initial values of A=500 and B=500:

**T1:  $A=A+100$ ,  $B=A-100$**

**T2:  $A=A*1.06$ ,  $B=B*1.06$**

Assuming T1 arrives first, what will be the final values of A and B if the database management system interleaves transactions?

☐ A=630, B=561.80

**Correct!**

☒ A=636, B=568.16

Starting with T1 and then interleaving after the first part to T1, these are the final values of A and B.

☐ A=636, B=530

☐ A=630, B=530