Janet enters into an interest rate swap with a notional of $\$ 10$ million where she receives a fixed rate of $5 \%$ and pays a floating rate based on 12 -month LIBOR for 5 years.
Payments on the swap are exchanged annually. Immediately following the third payment, Janet calculates the market value of her swap to be \$685,000.
If the two-year spot rate is $1.5 \%$ at that time, what will Janet receive or pay at the next payment date?

A 240,000
B 335,000
C 350,000
D 359,000
E 385,000

The prices of zero-coupon bonds are:

| Maturity | Price |
| :---: | :---: |
| 1 | 0.95420 |
| 2 | 0.90703 |
| 3 | 0.85892 |

Calculate the one year forward rate, deferred 2 years.
A 0.048
B 0.050
C 0.052
D 0.054
E 0.056

You are given the following spot rates:

| Years to Maturity | 1 | 2 |
| :--- | :---: | :---: |$\quad$| 3 |
| :--- |
| Spot Rate |$\quad 3.7 \% \quad 4.3 \% . \quad 4.8 \%$

Calculate the swap rate of a two-year interest rate swap with level notional amount.
A 2.9\%
B 4.1\%
C $4.3 \%$
D 6.6\%
E 7.5\%

You are given the following prices for a zero coupon bond that matures for 1 on the maturity date:

| Maturity Date | Price |
| :---: | :---: |
| 1 year | 0.965 |
| 2 years | 0.920 |
| 3 years | 0.875 |
| 4 years | 0.825 |
| 5 years | 0.770 |

Josh and Phillip enter into a four year swap with a notional amount of 200,000. The swap has annual settlement periods. Under the swap, Josh will pay Phillip the fixed swap rate at the end of each year while Phillip will pay Josh the variable rate where the variable rate is the one year spot rate at the beginning of each year.

Determine the net swap payment at the end of the first year.
A Josh pays 2,509
B Josh pays 3,309
C Phillip pays 1,709
D Phillip pays 2,509
E Phillip pays 3,309
You are given the following spot rates:

| Years to Maturity | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Spot Rate | $4.00 \%$ | $4.50 \%$ | $5.25 \%$ | $6.25 \%$ | $7.50 \%$ |

You enter into a 5-year interest rate swap with a notional amount of 100,000 to pay a fixed rate and to receive a floating rate based on future 1-year LIBOR rates. The swap has annual payments.

If the 1 -year LIBOR rate after 1 and 2 years turn out to be $5.25 \%$ and $8.10 \%$, respectively, determine the net cash flows that you will exchange with the swap counterparty in the first three years.

A Pay 4,000 in year 1, pay 750 in year 2, pay 2,850 in year 3
B Pay 3,197 in year 1, pay 1,947 in year 2, receive 903 in year 3
C Pay 1,967 in year 1, pay 717 in year 2, receive 2,133 in year 3
D Pay 1,500 in year 1, pay 250 in year 2, receive 2,600 in year 3
E Receive 3,197 in year 1, receive 1,947 in year 2, pay 903 in year 3

