

## Expected Output for Question 1:

**A:**

1. Print "hey from message1".
2. ~~It will save the return (1) in the container.~~

Explanation: it has only one function, so directly will go to it.

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## Expected Output for Question 2:

**A:**

1. Print "hey from message1".
2. ~~It will save the return (1) in the container.~~
3. Print "hey from message2".

Explanation: getMessage2() qualified by getMessage1(), so it won't start before getMessage1() ever.

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### Expected Output for Question 3:

**A:**

1. Print "hey from message1".
2. Print "hey from message3".
3. Print "hey from message2".

**B:**

1. Print "hey from message3".
2. Print "hey from message2".
3. Print "hey from message1".

**C:**

1. Print "hey from message3".
2. Print "hey from message1".
3. Print "hey from message2".

Explanation:

A: start with getMessage1(), then getMessage3() always before getMessage2(), because getMessage3() qualifies getMessage2().

B: start with getMessage3(), then it can choose method1 or method2 no matter.

C: same B, then it can choose one of remaining methods 1&2

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## Expected Output for Question 4:

**A:**

1. Print "hey from message1".
2. Print "hey from message3".
3. Print "hey from message2".
4. Print "hey from Main controller".

**B:**

1. Print "hey from message3".
2. Print "hey from message2".
3. Print "hey from message1".
4. Print "hey from Main controller".

**C:**

1. Print "hey from message3".
2. Print "hey from message1".
3. Print "hey from message2".
4. Print "hey from Main controller".

**D:**

1. Print "hey from message1".
2. Print "hey from Main controller".
3. Print "hey from message3".
4. Print "hey from message2".

**E:**

1. Print "hey from message1".
2. Print "hey from message3".
3. Print "hey from Main controller".
4. Print "hey from message2".

**F:**

1. Print "hey from message3".
2. Print "hey from message1".
3. Print "hey from Main controller".
4. Print "hey from message2".

Explanation:

Same as question 3, but the idea is that always **message1()** should appear before **MainController()**, and **message3()** comes before **message2()**.

## Expected Output for Question 5:

**A:**

1. Print " hey from message3 ".
2. Print " hey from message2 ".
3. Print " hey from Main controller ".
4. Print " hey from message1 ".

**B:**

1. Print " hey from message1 ".
2. Print " hey from message3 ".
3. Print " hey from message2 ".
4. Print " hey from Main controller".

Explanation:

**A:**

- 1- it will go directly to message3() because it doesn't require any parameter that depends on other qualifiers or functions.
- 2- it will go to message2() because it got qualifier("3"), which it has value and available to receive from it.
- 3- MianController qualifier("2"), which is available in container, so it will invoke it.
- 4- mainController object can be received in message1(), message1() will be invoked.

**B:**

- 1-mainController object can be received in message1(), message1() will be invoked.
- 2- message3() because it doesn't require any parameter that depends on other qualifiers or functions.
- 3- it will go to message2() because it got qualifier("3"), which it has value and available to receive from it.
- 4- MianController qualifier("2"), which is available in container, so it will invoke it.

