The modules are described below:

```
  Main Module M0
    call input module M1(FLAG) to obtain flag
    call processing module M2(FLAG, ARRAY)
    call output module M3(ARRAY) to display ARRAY

  Input module M1(FLAG)
    Prompt user to input a number and store it in FLAG

  Process module M2(FLAG, ARRAY)
    common variable ARRAY
    switch FLAG
    case 1: call module M21
    case 2: call module M22

  Submodule M21
    common variable ARRAY
    sort up 100 random numbers and store results in ARRAY

  Submodule M22
    common variable ARRAY
    sort down 50 random numbers and store results in ARRAY

  Output module M3(ARRAY)
    Display output ARRAY
```

(a) What is the cohesion of module M2? (pick the highest cohesion category)

Answer: communicational or informational cohesion
because M2 performs actions on the same data
structure so either answer will be correct
It is, of course, also logical/temporal/procedural
cohesion, but you are required to pick highest cohesion category.