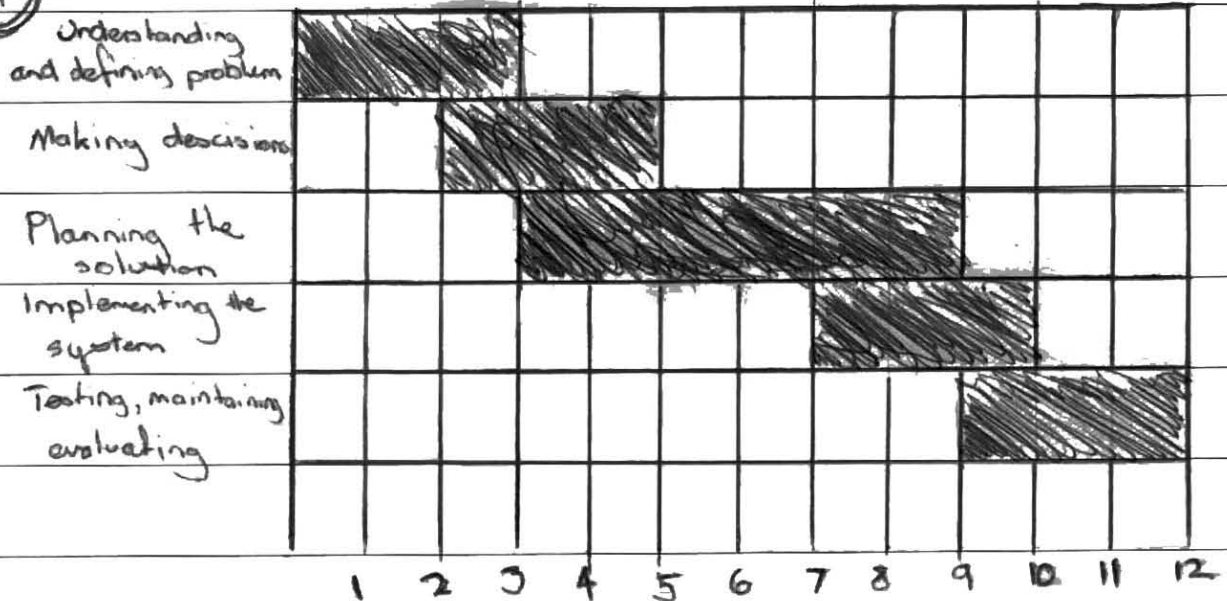




(a)



(b)

The programmers will need to use the data dictionary to find out the names of variables and what their use is. This is so they know what variable to change and what to call new variable they may use in the modification.

The original test data would be used to test to system once they have modified it. This will ensure that they have fixed any problems and that they will ~~continue~~ continue to get the same results as the old unmodified system.



(c) i)

2

3 0

4 0

5 22 55 66

6 2 5 6

7

8

9

10

11

66, 6

12

∴ Output is 66, 6.

iv) BEGIN

OPEN Transaction

total = 0

gst-total = 0

index = 0

Read first record

WHILE record NOT sentinel

Index = Index + 1

total = total + Transaction amount

READ next record

END WHILE

Transaction-average = $(\text{total} \div \text{index}) \times 100$

Output total, transaction-average

END

(d) This case tool is used so that the developer can see whether he has added more coding to a version or has refined the version from the last one. He has stored it on sequential

file to keep the version history in order.

```
ii) BEGIN
      OPEN Version, Results
      Index = 0
      WHILE eof = False
        IF Version(index).lines > 11000 THEN
          Results(index).VersionNumber = Version(index).VersionNumber
          Results(index).lines = Version(lines).VersionNumber
          index = Index + 1
        END WHILE
      END
```