Q: Consider the following program as typed into the Pep/8 system

```
a: .word 0x4800
b: .byte
main: deci a,d
    brne stop ; if input is zero we are done
    lda a,d
    asla
    asla ; shift twice to divide by 4
    deco a,d
    ldx b,d
    add a,d
    stx b,d ; add b to a
    br main
    lda a,d
    sta c,d ; copy a to c
    stop: .end
    c: .block 2
    a: .block 2
```

(a) List the errors that the assembler would find when assembling the program

(b) Identify other mistakes in the program that the assembler will not detect.
A: 

(a) 1. Missing operand line 2
2. Invalid mnemonic line 10
3. Unknown identifier (C) line 14

(b) 1. Missing STOP
2. Program begins with data
3. Based on comment on line 4, brne should be breq