# Chapter 1 Exercises

1. Which of the following are syntactically correct variable names in assembly language?

A. RX8

B. 325i

C. Total$

D. @1234

Answer: A (C and D are syntactically correct, but should be avoided)

2. Implement each of the following declarations in assembly language:

A. char initial;

B. char grade='B';

C. char x='P', y ='Q';

D. int amount;

E. int count= 0;

F. int number= -396;

Answer:

A screenshot of a computer program

AI-generated content may be incorrect.

3. Assuming that the variables have been declared properly, indicate whether the following

statements are syntactically correct or incorrect. If incorrect, indicate what is wrong

with the statement:

1. move cat,5

Answer: Incorrect - opcode instruction should be mov, not move

1. mov dog,cat

Incorrect - cannot move a value from memory location to memory location directly, must use a register as intermediary

1. mov eax,ebx

Correct

1. mov mouse,-7

Correct

1. mov 1,frog

Incorrect – order of operands is reversed.

1. mov horse,ecx

Correct

4. Assuming all the variables are declared as sdword, write assembly language instructions to implement each of the following C statements or segments:

A. i= 1;

B. x = y;

C. c = 2;

b = c;

a = b;

D. x = y = 1;

Answer:

A screenshot of a computer program

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5. Assuming all the variables are declared as byte, write assembly language instructions

to implement each of the following C statements or segments:

A. a ='B ;

B. b = c;

C. d='E'

e = d;

D. d = 'z';

a = d;

b = a;

Answer:

A screenshot of a computer

AI-generated content may be incorrect.