Καθηγητής Πληροφορικής
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http://www.zioulas.gr

**EXERCISES
CHAPTER 5**

VCZ

EXERCISES 1

Fill the missing words in the following sentences:

1. Logo is one of the modern _____ languages.
2. While a natural language creates sentences to express itself, Logo uses _____.
3. Logo follows a set of rules in order to express its commands under a correct syntax. These rules constitute its _____.
4. Each word in Logo is interpreted as a _____ for the computer to do something.
5. The basic commands of Logo (e.g. forward, right, show) are built into Microworlds and are widely known as _____.
6. A user can define new words and add them to the vocabulary creating his own commands that are called _____.
7. The data types of Logo include numbers, words and _____.
8. A number in Logo might be an integer or a _____ value.
9. A _____ consists of a sequence of characters that are called elements and should begin with quotation marks.
10. A _____ is a sequence of words separated by spaces and enclosed inside square brackets.
11. The `show` command is an _____ command because it displays pieces of information inside the command center.
12. The `show` command prints information such as numbers, words, lists and _____.
13. In an arithmetic expression we should place _____ before and after the sign of operation in order to avoid syntax errors.
14. The `announce` command displays a message inside an _____.
15. Using `question` and `answer` commands repeatedly, we can create an _____ program between the user and the computer.
16. Every word of the Microworlds vocabulary might be a _____ or a reporter.
17. If we type the command `setc 55`, 55 is a _____ which reports the color number to be assigned to a turtle.
18. By typing the command `show "Logo"`, we display the message _____ inside the command center.
19. The value [Programming with Logo in Microworlds EX v1.06] is a list which consists of 7 _____.
20. A word consists of a set of _____ that are called elements.

A) What are the data types of Logo language?

B) What is the data type of each one of the following data?

```
"school          5.25              "320            100
45               [How are you?]    [X = 5]         "5/11/13
[Hello kids !]   "John             [C' Class]      "Computers
320.             -10.23            "A              [5/11/13]
```

EXERCISE 3

What do the following commands display in the command center?

1)   **show** 25

2)   **show** "7+4

3)   **show** 7+4

4)   **show** 7 + 4

5)   **show** "A

6)   **show** 5 + 3 * 10 / 2

7)   **show** 5 * (3 + 7)

8)   **show** 100 / 20 * 3

9)   **show** 2 * (5 + (12 / 3))

10) **show** "Hello"

11) **show** [Good morning my students]

12) **show** (se [total number] 25 * 2)

13) **show** "red "green

14) **show** (se [My name is] "Nick)

15) **show** 4*5 + 8

16) **show** [red green blue]

17) **show** power 10 2

18) **show** (se [cost =] 100 / 20 "euro)

19) **show** power (5 + 3) 2
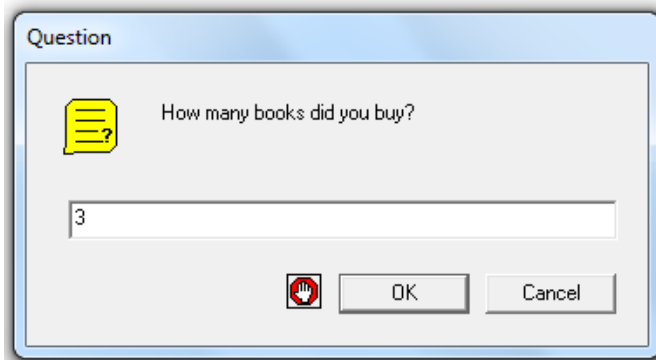
20) **show** (se[red black] "blue)

EXERCISE 4

What do the following commands display, given that the user gives value 5 as an answer?

```
question [Give an integer number]
announce (se [the number you have given is] answer)
announce (se [the square of] answer "is power answer 2)
announce (se [the cube of] answer "is power answer 3)
announce (se [the next number of] answer [is the number] answer + 1)
announce (se [the previous number of] answer [is the number] answer - 1)
```
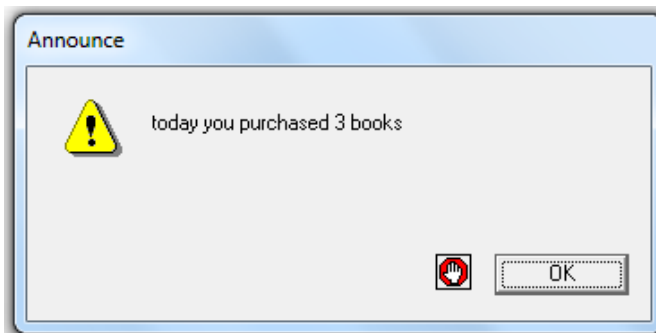
Evangelos C. Zioulas (IT Teacher)

Write down the commands that print the following dialogue boxes?

A)

Question

How many books did you buy?

3

OK   Cancel

B)

Announce

today you purchased 3 books

OK

C)

Announce

A book costs 20 euro so the total cost is 60 euro

OK