

IS MSc Artificial Intelligence Programming II

Exercise 2

Issued: week 2

In the following examples try to work out the answer away from the machine first, before trying them out (where this is appropriate). If you do not understand why your answer is different from what actually happens, then ask. Some of these actually involve quite advanced concepts, so do not worry if they seem a little puzzling right now.

1. Using examples explain the difference in meaning between the following seven symbols

- (a) \rightarrow
- (b) \Rightarrow
- (c) $\rightarrow\rightarrow$
- (d) $\Rightarrow\Rightarrow$
- (e) $-$
- (f) $=$
- (g) $>$

2. Explain the difference between the following five objects

- (a) "a"
- (b) 'a'
- (c) 'a'
- (d) a
- (e) [a]

3. What is the difference in meaning between each of the following three expressions

- (a) $1 + 2 * 3$
- (b) $(1 + 2) * 3$

(c) $1 + (2 * 3)$

4. Explain the difference between the following eight expressions (including MISHAPS if any)

- (a) `sqrt(25)`
- (b) `[sqrt(25)]`
- (c) `'sqrt(25)'`
- (d) `"sqrt(25)"`
- (e) `sqrt("25")`
- (f) `sqrt([25])`
- (g) `sqrt((25))`
- (h) `sqrt`

5. What do each of the following mean? If any are incorrect explain the resultant MISHAP.

- (a) `44->fred;`
- (b) `4 4->fred;`
- (c) `44 - > fred;`
- (d) `sqrt(49)->maryjane;`
- (e) `sqrt (49) -> maryjane;`
- (f) `sqrt(
49
)->
maryjane
;`
- (g) `sqrt(49)->mary jane;`
- (h) `sqrt(49) ->mary_jane;`
- (i) `sqrt(49) ->mary-jane;`
- (j) `44 ->"fred";`
- (k) `fred ->36;`
- (l) `7 ->sqrt(49);`