Exercice 1 : Les variables

|  |  |  |  |
| --- | --- | --- | --- |
| Variables |  |  |  |
|  | a, b : Entier | a | b |
|  |  |  |  |
| DEBUT |  |  |  |
|  | a 🡨 15 // a prend 15 |  |  |
|  | b 🡨 24 / 2 //b prend 24 divisé par 2 |  |  |
|  | a 🡨 b + b + 1 //a prend la valeur de b plus b +1 |  |  |
| FIN |  |  |  |

Dérouler les valeurs de l’algorithme « affectation » en remplissant les cases mémoires (traçage).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CONSTANTES |  |  |  |  |  | E |
|  | E 🡨 5 : entier |  |  |  |  |  |
|  |  |  |  |  |  |  |
| VARIABLES |  |  |  |  |  |  |
|  | a, b, c, d : entiers |  |  |  |  |  |
|  |  |  |  |  |  |  |
| DEBUT |  | a | b | c | d | E |
|  | a 🡨 10 |  |  |  |  |  |
|  | b 🡨 25 - a |  |  |  |  |  |
|  | c 🡨 b - 10 |  |  |  |  |  |
|  | d 🡨 c + a |  |  |  |  |  |
|  | c 🡨 c + c |  |  |  |  |  |
| FIN |  |  |  |  |  |  |

Trouver les erreurs de l'algorithme et expliquer pourquoi.

|  |  |  |
| --- | --- | --- |
| VARIABLES |  |  |
|  | a, b, c : entiers |  |
|  | e, f : caractères |  |
|  | g : réel |  |
|  | trouve : booléen |  |
|  |  |  |
| DEBUT |  |  |
|  | a 🡨 ((10+2)\*3)/2 |  |
|  | b 🡨 c |  |
|  | c 🡨 5 + 3 |  |
|  | z 🡨 25 |  |
|  | a + c 🡨 15 |  |
|  | trouve 🡨 0 |  |
|  | 'e' 🡨 'a' |  |
|  | b 🡨 e |  |
|  | f 🡨 "coucou" |  |
|  | trouve 🡨 ! trouve |  |
|  | a 🡨 2,25 |  |
|  | trouve 🡨 (a = b) |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| VARIABLES |  |  |  |  |
|  | a, b, c : entiers |  |  |  |
|  |  | nb1 | nb2 | nb3 |
|  | nb1 = 25 |  |  |  |
|  | nb2 = 9 |  |  |  |
|  | nb3 = 17 |  |  |  |
|  | nb2 = nb3 |  |  |  |
|  | nb3 = nb2 + nb1 |  |  |  |
|  | nb2 = nb3 |  |  |  |
|  | nb3 = nb3 - 5 |  |  |  |
|  | nb1 = nb3 – nb1 |  |  |  |