**Pontifícia Universidade Católica do Paraná**

Raciocínio Algorítmico – Lista Teórica 1

Professora Marina de Lara

Aluno: Eduardo Moura de Resende

1. Sendo **S = 10**, **A = 10**, **B = 20**, **C = 35**, **D = 15.0** e **E = 3.0**, qual será o valor final de S após a execução de cada uma das expressões?

|  |  |
| --- | --- |
| **EXPRESSÃO** | **RESPOSTA** |
| S = B / A | 2 |
| S = C / A | 3,5 |
| S = C % B | 15 |
| S = D / E | 5 |
| S += A | 20 |
| S /= A | 1 |
| S = 2 \*\* A | 1024 |
| S = 25 \*\* 1.0 / 2.0 | 12,5 |
| S = C \* 2 + B / A – (A + B) \* 2 \*\* E | -168 |
| S -= A + B | -20 |
| S \*= C - A | 250 |

1. Complete as tabelas abaixo:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AND (**E**)   |  |  |  | | --- | --- | --- | | **A** | **B** | **S** | | V | V | V | | V | F | F | | F | V | F | | F | F | F | | OR (**OU**)   |  |  |  | | --- | --- | --- | | **A** | **B** | **S** | | V | V | V | | V | F | v | | F | V | v | | F | F | F | | NOT (**NEGAÇÃO**)   |  |  | | --- | --- | | **A** | **S** | | V | F | | F | V | |

1. Sendo **A = True**, **B = False** e **C = False**, resolva:

|  |  |
| --- | --- |
| **EXPRESSÃO** | **RESPOSTA** |
| S = A **or** B **or** C | TRUE |
| S = **not** A **and** B **or** C | FALSE |
| S = **not** (A **and** B) **and** C | FALSE |
| S = **not** (**not** A **or** **not** C) | FALSE |

1. Sendo **A = 10**, **B = 20** e **C = 30**, resolva:

|  |  |
| --- | --- |
| **EXPRESSÃO** | **RESPOSTA** |
| S = A > B | FALSE |
| S = (B \* 2 + A) >= B + C | TRUE |
| S = A + B != C | FALSE |
| S = B <= C | TRUE |
| S = A \* 2 == B | TRUE |
| S = (C - A) / 2 >= B | FALSE |

1. Informe a precedência:

|  |  |
| --- | --- |
| **OPERADOR** | **PRIORIDADE** |
| >, <, <=, >=, ==, != | 2 |
| AND, OR, NOT | 3 |
| +, -, /, \*, % | 1 |

1. Sendo **A = 10**, **B = 20** e **C = 30**, resolva:

|  |  |
| --- | --- |
| **EXPRESSÃO** | **RESPOSTA** |
| S = A > B and A + B > A + C / A | FALSE |
| S = not (A != B or A < C) and C == A + B | FALSE |
| S = not True or A \*\* 2 / 3 < C – B % 7 | FALSE |
| S = A > B and C < B or not (A == B) | TRUE |