**Input:**

NOT T AND T OR F

**Output:**    F

*Propositional Logic Parsing*

**Input:**

1 + ( 1 + 1 ) * ( 1 + 1 + 1)

**Output:**    7

*Integer Arithmetic*

**Input:**

if cond then v = c else if cond then v = c else v = v

**Output:**    Legal Input

*If-then-else language Parsing*

Read Head    Write Head

Input Tape:    | A | C | D | A |

Output Tape:    | A | C | D |

*Copy*

Read Head    Write Head

Input Tape:    | A | A | D | D |

Output Tape:    | A | D |

*Duplicate Inpute*

Read Head    Write Head

Input Tape:    | 1 | 3 | 1 | 3 |
              | 2 | 1 | 2 | 1 |

Output Tape:    | 3 | 4 | 3 |

*Reverse Addition*

Read Head    Write Head

Input Tape:    | 1 | 3 | 1 | 3 |
                          | 2 |

Output Tape:    | 2 | 6 | 2 |

*Single Multiplication*