

Advent Of Code

--- Day 5: Sunny with a Chance of Asteroids ---

Part 1

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% clear; clc;
inp=[3,225,1,225,6,6,1100,1,238,225,104,0,1102,57,23,224,101,-1311,224,224,4,224,1002,223,8,223,
con=[1 2 1001 1002 1101 1102 101 102 104]; con2=[3 4];
for i=1:1:length(inp)
    if inp(i)==3
        inp(inp(i+1)+1)=1;%input('Input ID: ');
    elseif inp(i)==4
        fprintf('Disp %d at iteration %d\n',inp(inp(i+1)+1),i);
    elseif inp(i)==1
        temp1=inp(1,i+1);
        temp2=inp(1,i+2);
        temp3=inp(1,i+3);
        if i>4 && (ismember(inp(i-1),con)==0 && (ismember(inp(i-4),con)==1 || ismember(inp(i-2),con)==1))
            inp(1,temp3+1)=inp(temp1+1)+inp(temp2+1);
        elseif i<4 && (ismember(inp(i-1),con)==0 && ismember(inp(i-2),con2)==1 )
            inp(1,temp3+1)=inp(temp1+1)+inp(temp2+1);
        end
    elseif inp(i)==2 && i>4 &&(ismember(inp(i-1),con)==0 && (ismember(inp(i-4),con)==1 || ismember(inp(i-2),con)==1))
        temp1=inp(1,i+1);
        temp2=inp(1,i+2);
        temp3=inp(1,i+3);
        inp(1,temp3+1)=inp(temp1+1)*inp(1,temp2+1);
    elseif inp(i)==99
        break
    elseif inp(i)>99
        temp1=inp(1,i+1);
        temp2=inp(1,i+2);
        temp3=inp(1,i+3);
        if inp(i)==1001
            inp(1,temp3+1)=inp(temp1+1)+temp2;
        elseif inp(i)==1002
            inp(temp3+1)=inp(temp1+1)*temp2;
        elseif inp(i)==1101
            inp(temp3+1)=temp1+temp2;
        elseif inp(i)==1102
            inp(temp3+1)=temp1*temp2;
        elseif inp(i)==101
            inp(temp3+1)=temp1+inp(temp2+1);
        elseif inp(i)==102
            inp(temp3+1)=temp1*inp(temp2+1);
        elseif inp(i)==104
            fprintf('Disp %d at iteration %d\n',inp(i+1),i);
        end
    end
end
end
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Disp 0 at iteration 11

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Disp 0 at iteration 21
Disp 0 at iteration 47
Disp 0 at iteration 69
Disp 0 at iteration 91
Disp 0 at iteration 113
Disp 0 at iteration 135
Disp 0 at iteration 165
Disp 0 at iteration 199
Disp 14155342 at iteration 221

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Part 2

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inp=[3,225,1,225,6,6,1100,1,238,225,104,0,1102,57,23,224,101,-1311,224,224,4,224,1002,223,8,223,1001,1002,1005,1006,1007,1008,1101,1102,1105,1106,1107,1108,101,102,105,106,107,108,109,110,111,112,113,114,115,116,117,118,119,120,121,122,123,124,125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178,179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,194,195,196,197,198,199,200,201,202,203,204,205,206,207,208,209,210,211,212,213,214,215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,232,233,234,235,236,237,238,239,240,241,242,243,244,245,246,247,248,249,250,251,252,253,254,255];
con=[1 2 5 6 7 8 1001 1002 1005 1006 1007 1008 1101 1102 1105 1106 1107 1108 101 102 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255];
p=1;
while 1
    x1=inp(p);
    if x1==99
        break
    end
    temp1=inp(p+1);
    temp2=inp(p+2);
    temp3=inp(p+3);
    if x1==1
        inp(temp3+1)=inp(temp1+1)+inp(temp2+1);
        p=p+4;
    elseif x1==2
        inp(temp3+1)=inp(temp1+1)*inp(temp2+1);
        p=p+4;
    elseif x1==3
        inp(temp1+1)=5;%input('Input ID: ');
        p=p+2;
    elseif x1==4
        disp(inp(temp1+1))
        p=p+2;
    elseif x1==5
        if inp(temp1+1)~=0
            p=inp(temp2+1);
        else
            p=p+3;
        end
    elseif x1==6
        if inp(temp1+1)==0
            p=inp(temp2+1);
        else
            p=p+3;
        end
    elseif x1==7
        if inp(temp1+1)<inp(temp2+1)
            inp(temp3+1)=1;
        else
            inp(temp3+1)=0;
        end
        p=p+4;
    elseif x1==8

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    if inp(temp1+1)==inp(temp2+1)
        inp(temp3+1)=1;
    else
        inp(temp3+1)=0;
    end
    p=p+4;
elseif x1==1001
    inp(temp3+1)=inp(temp1+1)+temp2;
    p=p+4;
elseif x1==1002
    inp(temp3+1)=inp(temp1+1)*temp2;
    p=p+4;
elseif x1==1005
    if inp(temp1+1)~=0
        p=temp2+1;
    else
        p=p+3;
    end
elseif x1==1006
    if inp(temp1+1)==0
        p=temp2+1;
    else
        p=p+3;
    end
elseif x1==1007
    if inp(temp1+1)<temp2
        inp(temp3+1)=1;
    else
        inp(temp3+1)=0;
    end
    p=p+4;
elseif x1==1008
    if inp(temp1+1)==temp2
        inp(temp3+1)=1;
    else
        inp(temp3+1)=0;
    end
    p=p+4;
elseif x1==1101
    inp(temp3+1)=temp1+temp2;
    p=p+4;
elseif x1==1102
    inp(temp3+1)=temp1*temp2;
    p=p+4;
elseif x1==1105
    if temp1~=0
        p=temp2+1;
    else
        p=p+3;
    end
elseif x1==1106
    if temp1==0
        p=temp2+1;
    else

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        p=p+3;
    end
elseif x1==1107
    if temp1<temp2
        inp(temp3+1)=1;
    else
        inp(temp3+1)=0;
    end
    p=p+4;
elseif x1==1108
    if temp1==temp2
        inp(temp3+1)=1 ;
    else
        inp(temp3+1)=0;
    end
    p=p+4;
elseif x1==101
    inp(temp3+1)=temp1+inp(temp2+1);
    p=p+4;
elseif x1==102
    inp(temp3+1)=temp1*inp(temp2+1);
    p=p+4;
elseif x1==104
    disp(temp1)
    p=p+2;
elseif x1==105
    if temp1~=0
        p=inp(temp2+1)+1;
    else
        p=p+3;
    end
elseif x1==106
    if temp1==0
        p=inp(temp2+1)+1;
    else
        p=p+3;
    end
elseif x1==107
    if temp1<inp(temp2+1)
        inp(temp3+1)=1;
    else
        inp(temp3+1)=0;
    end
    p=p+4;
elseif x1==108
    if temp1==inp(temp2+1)
        inp(temp3+1)=1;
    else
        inp(temp3+1)=0;
    end
    p=p+4;
end
end
end

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