

1)

$$S = \frac{(C - A^B)}{(B - C) * A}$$

a)

Pop op;	(op) ← topo
Push op;	topo ← (op)
Sub;	topo ← topo - topo <sub>-1</sub>
Mul;	topo ← topo * topo <sub>-1</sub>
Div;	topo ← topo / topo <sub>-1</sub>
Pow;	topo ← topo ** topo <sub>-1</sub>

b)

Push B;  
 Push A;  
 Pow;  
 Push C;  
 Sub;  
 Pop S;  
 Push C;  
 Push B;  
 Sub;  
 Push A;  
 Mul;  
 Push S;  
 Div;  
 Pop S;

2)

$$S = \frac{(C - A^3)}{(B - 5) * (A + 2)}$$

a)

Movmw op;	W ← (op)
Movwm op;	(op) ← W
Add op;	W ← W + (op)
AddI op;	W ← W + op
Sub op;	W ← W - (op)
SubI op;	W ← W - op
Mul op;	W ← W * (op)
Div op;	W ← W / (op)
PowI op;	W ← W ** op

b)  
Movemw B;  
SubI 5;  
Movewm S;  
Movemw A;  
AddI 2;  
Mul S;  
Movewm S;  
Movmw A;  
PowI 3;  
Movwm S1;  
Movmw C;  
Sub S1;  
Div S;  
Movewm S;