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formula := original formula to be model counted for
k := number of bits per integer variable for representation
a := iterations per estimate
alpha := maximal error probability
epsilon := maximal multiplicative error
l := number of integer variables in formula
g :=  $(\sqrt{a+1} - 1)^2$ 
G :=  $(\sqrt{a+1} + 1)^2$ 
B :=  $\sqrt{a+1} + 1 \frac{1}{\sqrt{a+1}-1}$ 
// q = amount of formula replications
q :=  $\text{ceil}(1 + 4\log_2 \text{sqrta} + 1 + 1 - 2 \log_2 2a / 2\log_2 1 + \epsilon)$ 
q :=  $\text{ceil}(1 + \log_2 B / 2\log_2 1 + \epsilon)$ 
p :=  $\text{ceil}(g^{1/q})$ 
p :=  $\text{ceil}(\text{sqrta} + 1 - 1^{2/q})$ 
formula.e := formula with additional l k bits encoding the integer variables
formula.q := formula.e but replicated q times in conjunction
// kp = n = total number of bits in formula.q
n := k q l
// mp = maximal number of majority vote estimate iterations
mp :=  $\text{floor}(n - 2\log_2 \text{sqrta} + 1 + 1)$ 
mp :=  $\text{floor}(n - \log_2 G)$ 
// r = majority estimate vote count
r :=  $\text{ceil}(8\log_e 1/\alpha \text{ floor}(n - 2\log_2 \text{sqrta} + 1 + 1))$ 
r :=  $\text{ceil}(8\log_e 1/\alpha \text{ floor}(n - \log_2 G))$ 
m = edge of estimate after iteration procedure
// v = return value
v :=  $a2^{m-0.5} 1/q$ 

```