Solution

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1 The loop will be unrolled and constant propogation will allow GCC to

compute the final value of `a'. Hence the loop will be removed

entirely.

main () main ()

{ {

int a; <bb 2>:

int i; return 14;

int D.1593;

}

<bb 2>:

a\_3 = 10;

i\_4 = 0;

goto <bb 4>;

<bb 3>:

a\_5 = a\_2 + 1;

i\_6 = i\_1 + 1;

<bb 4>:

# i\_1 = PHI <i\_4(2), i\_6(3)>

# a\_2 = PHI <a\_3(2), a\_5(3)>

if (i\_1 <= 3)

goto <bb 3>;

else

goto <bb 5>;

<bb 5>:

D.1593\_7 = a\_2;

return D.1593\_7;

} |