#include

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using namespace std;

#define inf 1000000000

struct cow

{

int w, s;

} d[50010];

bool operator < (cow a, cow b)

{

return a.s < b.s;

}

int main()

{

freopen("acrobat.in", "r", stdin);

freopen("acrobat.out", "w", stdout);

int n, s, r, i;

scanf("%d", &n);

for (i = 0; i < n; i++)

{

scanf("%d%d", &d[i].w, &d[i].s);

d[i].s += d[i].w;

}

s = 0;

r = inf;

sort(d, d+n);

for (i = 0; i < n; i++)

{

s += d[i].w;

if (r < s-d[i].s)

r = s-d[i].s;

}

printf("%d\n", r);

return 0;

}