

E T N 2020

Σ M A.M: 4104
X Γ M A.M: 4206
 Γ M A.M: 4258

A 1

Σ UCS A*

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A

T (""). Σ , n ("M") ("A") ,
n , n,

. O

, :

1. B .
2. A .
3. Π .
4. A
2.
5. A .
6. E - .
7. B - (
).
8. B - .
9. E 2.

Γ UCS, 3
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 , , .
 O A^* , UCS, .
 T , ,
 . E , ,
 .
E Σ
 Γ A^* , . Γ
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 M , ,
 .
 T E ...
Υ
 H , **Java.** A
 . E : (
),
 (N), $2n+1.$ Σ
UCS A^* (. T)
 .
 O . H
Node, , ,
 . Σ **UCS** 0. H
A* ,
 .
 Π .
 O **UCS** , . T

A^* UCS
 $\cdot O$ A^*
 $\cdot ???O$
 A^*
 $???$
 Δ : ucs
 $,$,

A 2

Σ	MINIMAX	SOS.
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A

H

•

Π :

- $(10 - \mathit{depth})$ $\mathit{depth.}$
- $(-10 + \mathit{depth})$ $\mathit{depth.}$
- 0 ().

K
[2, 9] [-9, -2] , 0
8 (8 S O).

M
“ ”
.

 Υ

H Java .

$$A = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}, \quad \text{MINIMAX} \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}, \quad \text{minimax} \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}, \quad \Gamma$$

$$\sum_{i=1} \left[\binom{n}{n=+1-i} 2^i \right]$$

•

$$\Gamma = \begin{pmatrix} 8 & 0 \\ 10.449.792 & 17.017.968 \end{pmatrix}, \quad \text{H} = \begin{pmatrix} 8 & 0 \\ 8 & 0 \end{pmatrix}.$$

SOS,

, E ,

, , .

Γ

- ’, Δ
0. A : 2 1 O
1. K **minimax:** 1 1 O
Δ : 10.449.792
2. K : 2 2 S
3. K **minimax:** 1 2 S
Δ : 69.228
4. K : 3 2 S
5. K **minimax:** 1 3 S
Δ : 620
6. K : 3 3 O
7. K **minimax:** 2 3 S
Δ : 12
8. K : 3 1 O
Λ

A **MAX** (,) ,
. E , (
cpu).