

↑
 â lj
 Ъ W 2012 342 ~
 ð lj W 2013
 219 ~ W 2014 1 ~
 lj W 2014 2 ~ Đ
 ↑
 2018 k 2018 29
 ~ lj ↑ 2019 k 2019
 117 ~ W 2022 60 ~
 τ , L ↑
 τ ~ η 7/8 í γ "

η L

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ǎ
 1. í γ " ~ η 7/8 η L
 lj ƒ L k lj
 'P í k lj p
 ~ p ~ a
 2. ì ɾ ī γ β Ā " ī
 " ī
 3. L k lj p 'E ƒ
 i í ǎ ƒ
 ⇔ lj l i p l ↑ í ǎ

M

№	Условие	Время, мин	Скорость, м/с	Угол, град	Длина, м	Плотность, г/см³
1.	Условие	18000	11000	20%	14000	30%
2.	Условие	12000	8000	5%	6000	15%
	Условие	4000	30%	50%		

3. $\mathbb{F}$:

n η L : $\% \mathfrak{a} \vee$ 30000 "H
 20000 "H

4. η N_0 : $\% \gamma$ $\mathfrak{a} \%$

$\lambda \updownarrow \mathfrak{u}$

lj

lj $\backslash$ $p^\sim$ $\dot{\imath}$ τ $\uparrow$ $\backslash$

$\mathfrak{a}$ $\sim$ $\mathfrak{a}$

$\mathfrak{H}$ lj $\mathfrak{u}$ N_0

1. lj $\tilde{A}$ $\mathfrak{u}$, $\sim$ $\mathfrak{u}$

N_0 η $\mathfrak{D}$ $\tilde{\omega}$

$\sim$ $\sim$ $\tilde{\omega}$ $\mathfrak{u}$ $\tilde{\omega}$ $\sim$ γ lj

$\tilde{\omega}$ "985" $\mathfrak{u}$ $\tilde{\omega}$ $\sim$ lj

$\dot{\imath}$ $\sim$, "211" $\tilde{\imath}$ $\tilde{\omega}$ $\sim$

lj $\tilde{\imath}$ γ N_0 N_0 L GPA

$\mathfrak{P}$ $\sim$, "211" $\sim$

Δ $+$ $\tilde{\omega}$ $\lambda \updownarrow \sim$ lj $\dot{\imath}$ τ

$\sim$ $\sim$ Δ $+$ $\tilde{\omega}$

$\mathfrak{V}$ lj $\mathfrak{u}$ lj

N_0 , γ lj N_0 $\tilde{A}$ γ $\mathfrak{b}$ $\mathfrak{a}$ $\mathfrak{u}$

2. $\vee$ lj N_0 η $\mathfrak{u}$

$\sim$, $\lambda \updownarrow$ $\mathbb{F}$ $\vee$

$\vee$ $\sim$

3. lj $\mathfrak{D}$ N_0

$\tilde{A}$ $\mathfrak{u}$ $\dot{\imath}$ lj ψ $\mathfrak{t}$

: $\mathfrak{u}$ N_0 γ $=$

γ β $\mathfrak{a}$

$\hat{E}$ N_0 η $\tilde{A}$ $\mathfrak{u}$ $\dot{\imath}$ $\sim$

lj ψ $\mathfrak{t}$: $\mathfrak{u}$

$\Leftrightarrow$ $\mathbb{Z}$ β $\%_0$ $\mathbb{Z}$ $\dot{\imath}$ $\Leftrightarrow$ $\mathbb{Z}$ r
 $\mathbb{Z}$ $\mathbb{Z}$ β $\dots$ L ρ $\check{\alpha}$ γ $\check{\alpha}$
 γ β

$\mathbb{M}$ $\mathbb{N}_0$ η $\check{\alpha}$ ω $\dot{\imath}$
 $\mathbb{Z}$ Ψ $\vdash$ $:$ $\dots$

$\mathbb{M}$ $\mathfrak{b}$ 'E 'E 'E Π λ $\dagger$ τ
 $\mathfrak{D}$ $\mathfrak{b}$ $\dot{X}$
 $\mathbb{M}$ Ψ $\check{\alpha}$ κ $\check{\alpha}$ κ $\check{\alpha}$
 κ $\mathfrak{O}$ η κ
 γ β $\dagger$ L Δ $\mathfrak{b}$

$\mathbb{M}$ $\mathbb{Z}$
1. $\dots$ $\mathfrak{D}$ ρ
2. $,$
3.

ρ $\vee$ $\mathfrak{D}$
 $\tilde{\eta}$ $\mathfrak{L}$ γ ρ $\acute{\imath}$ $\check{\alpha}$ $\vee$
 γ β $\check{\alpha}$ γ β $\mathfrak{L}$ $\check{\alpha}$ β
 $\mathbb{N}_0$ $\mathbb{L}$ $\sim$ ρ $\acute{\imath}$ $\check{\alpha}$
 γ 'E ' 4 β
 $\check{\alpha}$ γ β $\check{\alpha}$ $\mathfrak{L}$ β $\mathbb{N}_0$ $\sim$ $\mathbb{Z}$
 $\dot{\imath}$ τ $\sim$ $\mathfrak{L}$ $\mathbb{Z}$ $\mathfrak{D}$ $\mathbb{N}_0$ 'P γ
 $\mathbb{Z}$ ρ $\mathbb{N}_0$ $\mathfrak{L}$ $\int$ γ 'E '
 Ψ $\check{\alpha}$ $\mathbb{Z}$ $\bar{\imath}$ ρ ' $\check{\alpha}$ γ $\check{\imath}$ $\dot{\imath}$
 $\check{\alpha}$ $\mathfrak{b}$ Ψ $\mathbb{Z}$
 γ

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b

M'E

$\mathfrak{M}$ $\mathfrak{H}$ $\mathfrak{l}_j$ $\mathfrak{U}$ $\mathfrak{i}$ $\mathfrak{a}$ $\mathfrak{i}$
 $\mathfrak{A}$ $\mathfrak{U}$ $\mathfrak{A}$ $\mathfrak{W}$

$\mathfrak{M}$ $\mathfrak{E}$ $\mathfrak{l}_j$ $\mathfrak{L}$ $\mathfrak{y}$ $\mathfrak{B}$
 $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{E}$ $\mathfrak{b}$ $\mathfrak{a}$ $\mathfrak{b}$ $\mathfrak{u}$

$\mathfrak{NoW}$ $\mathfrak{i}$ $\%$

$\mathfrak{M}$ $\mathfrak{A}$ $\mathfrak{D}$
 1. $\mathfrak{A}$ $\mathfrak{A}$ $\mathfrak{U}$ $\mathfrak{U}$
 $\mathfrak{A}$ $\mathfrak{a}$

2. $\mathfrak{l}_j$ $\mathfrak{A}$ $\mathfrak{p}$
 $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{A}$ $\mathfrak{a}$

3. $\mathfrak{y}$ $\mathfrak{B}$ $\mathfrak{a}$ $\mathfrak{No}$ $\mathfrak{D}$

$\mathfrak{No}$ $\mathfrak{y}$

$\mathfrak{M}$ $\mathfrak{NoW}$

1. $\mathfrak{No}$ $\mathfrak{y} =$ $\mathfrak{No} * 20\% +$

$\mathfrak{No} * 50\% +$ $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{No} * 30\%$

2. $\mathfrak{l}_j$ $\mathfrak{No} =$ $\mathfrak{No} * 20\% +$ $\mathfrak{No} * 60\% +$

$\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{No} * 20\%$

3. $\mathfrak{v}$ $\mathfrak{No}$ $\%$ $\mathfrak{No}$ $\mathfrak{U}$ $\mathfrak{U}$

$\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$

$\mathfrak{U}$

$\mathfrak{U}$ $\mathfrak{U}$

$\mathfrak{M}$ $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$

$\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{A}$ $\mathfrak{U}$ $\mathfrak{L}$ $\mathfrak{U}$

$\mathfrak{M}$ $\mathfrak{U}$ $\mathfrak{A}$ $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$

$\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$ $\mathfrak{U}$

$\mathfrak{U}$ $\mathfrak{A}$ $\mathfrak{b}$

‘E ”

2023 9

v No

lj	No
1	1
2	2
3	3
4	4
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98	98
99	99
100	100

1. Ij No ψ No γ $\neq$
 2. $\alpha \%$ $\vdash$ $\vec{0}$ τ
 3. No

≠	/ ʈ	ʈ
	90	50
e	70	40
e	50	30
e	35	20
e CSSCI e	20	10
. e EI ISTP CSSCI e	10	5
`E e	3	1
ǎ ψ 985/211	4	2
ǎ ψ 1 ĭ γ	2	1

2017

I SSN CN

2000

3000

2017

CSSCI , SSCI , A&HCI, FMS

1. 5

2 b

	Á	• Á	ǎ â	ǎ p
60	50	40	20	15

15

3.

≠	Ã				ĩ γ
	100	40	20	15	10
	40	20	15	10	
1	20	15	10		
	8	4	2		
	4	2	1		

≠ ¨H	Ã	
1.2 ≤ γ ≤ 10	5	1
10 < γ ≤ 20	10	2
20 < γ ≤ 50	20	4
50 < γ ≤ 100	30	6
100 < γ ≤ 300	40	8
300 < γ ≤ 500	50	10
500 < γ	60	12

2

20%

20%

4

≠				п ї ї
	50	40	30	20
	30	20	15	10
1	20	15	10	5
	10	7	4	2
	6	4	2	1

*1.5 *1.4 *1.3 *1.2 *1.1

2 ψ ⌊

ρ̇	
1.5-6 №	1.5-6 №

6 4