

# International Negotiations Games, Strategies and Negotiations

## Exercises for class

Costas Roumanias

AUEB, Department of International and European Economic Studies

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# Games, class examples

## Games, class examples

	L	D
U	2,1	0,2
D	1,2	3,0

# Games, class examples

# Games, class examples

In the following game find the strategies that survive IDSDS

## Games, class examples

In the following game find the strategies that survive IDSDS

Also find the NE of the game

## Games, class examples

In the following game find the strategies that survive IDSDS

Also find the NE of the game

	L	C	R
U	2,0	1,1	4,2
M	3,4	1,2	2,3
D	1,3	0,2	3,0

# Games, class examples



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## Games, class examples

In the following game find the strategies that survive IDSDS

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	$t_1$	$t_2$	$t_3$	$t_4$
$s_1$	0, 0	-1, 1	1, 1	0, -1
$s_2$	1, -1	1, 0	0, 1	0, 0
$s_3$	0, 1	-1, -1	1, 0	1, -1
$s_4$	-1, 1	0, -1	-1, 1	0, 0
$s_5$	1, 1	0, 0	-1, -1	0, 0

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Also find the NE of the game

	s1	s2	s3	s4	s5
t1	2, 3	0, 7	4, 5	9, 9	1, 4
t2	2, 7	4, -2	-1, 0	0, -3	4, -4
t3	5, 0	6, 3	0, 2	1, 3	-5, 1
t4	3, 23	0, 4	14, 3	0, 0	12, 2
t5	11, 10	4, 11	-5, 10	9, 10	9, 9

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	s1	s2	s3	s4	s5
t1	2, 3	0, 7	4, 5	9, 9	1, 4
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t3	5, 0	6, 3	0, 2	1, 3	-5, 1
t4	3, 23	0, 4	14, 3	0, 0	12, 2
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t5	11, 10	4, 11	-5, 10	9, 10	9, 9

# Games, class examples

Find the NE of the game

# Games, class examples

Find the NE of the game

	L	R
U	2, 7	4, 7
D	2, 3	4, 7



# Games, class examples

Find the NE of the game

	L	R
U	2, 7	4, 7
D	2, 3	4, 7

# Games, class examples

Find the NE of the game

# Games, class examples

Find the NE of the game

	ll	lr	rl	rr
L	11, 10	11, 10	-4, 10	-4, 10
R	12, -2	-4, -2	12, -2	-4, -2

# Games, class examples

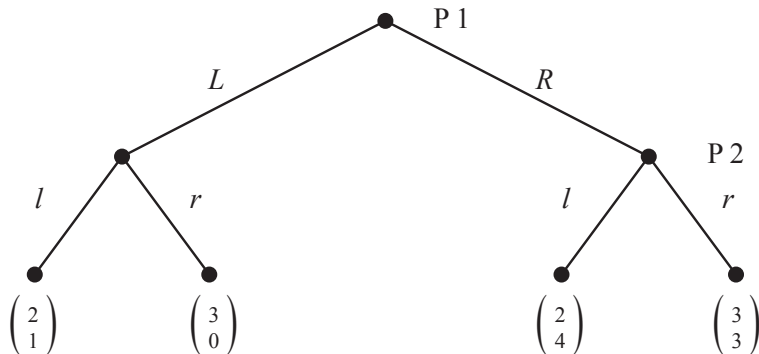
Find the NE of the game

	ll	lr	rl	rr
L	11, 10	11, 10	-4, 10	-4, 10
R	12, -2	-4, -2	12, -2	-4, -2

# Games, class examples

For the following extensive form game:

1. find the equivalent strategic form representation
2. find the Nash equilibrium/a of the game
3. find the SPNE of the game



# Games, class examples

For the following extensive form game:

1. find the equivalent strategic form representation

# Games, class examples

For the following extensive form game:

1. find the equivalent strategic form representation

	ll	lr	rl	rr
L	2, 1	2, 1	3, 0	3, 0
R	2, 4	3, 3	2, 4	3, 3

# Games, class examples

For the following extensive form game:

1. find the equivalent strategic form representation

	ll	lr	rl	rr
L	2, 1	2, 1	3, 0	3, 0
R	2, 4	3, 3	2, 4	3, 3

2. find the Nash equilibrium/a of the game
3. find the SPNE of the game



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For the following extensive form game:

1. find the equivalent strategic form representation
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	ll	lr	rl	rr
L	2, 1	2, 1	3, 0	3, 0
R	2, 4	3, 3	2, 4	3, 3

3. find the SPNE of the game

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# Games, class examples

For the following extensive form game:

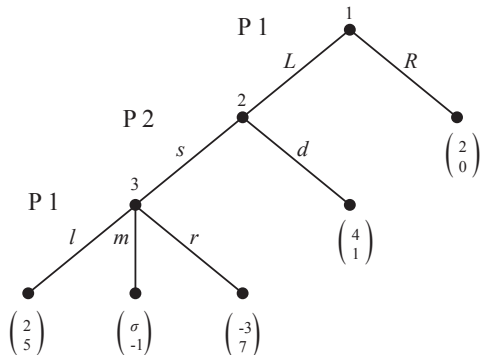
1. find the equivalent strategic form representation
2. find the Nash equilibrium/a of the game
3. find the SPNE of the game

	ll	lr	rl	rr
L	2, 1	2, 1	3, 0	3, 0
R	2, 4	3, 3	2, 4	3, 3

# Games, class examples

For the following extensive form game assume that  $\sigma = -1$ :

1. find the equivalent strategic form representation
2. find the Nash equilibrium/a of the game
3. find the SPNE of the game



# Games, class examples

For the following extensive form game assume that  $\sigma = -1$ :

1. find the equivalent strategic form representation

# Games, class examples

For the following extensive form game assume that  $\sigma = -1$ :

1. find the equivalent strategic form representation

	s	d
Ll	2, 5	4, 1
Lm	-1, -1	4, 1
Lr	-3, 7	4, 1
Rl	2, 0	2, 0
Rm	2, 0	2, 0
Rr	2, 0	2, 0

# Games, class examples

For the following extensive form game assume that  $\sigma = -1$ :

1. find the equivalent strategic form representation

	s	d
LI	2, 5	4, 1
Lm	-1, -1	4, 1
Lr	-3, 7	4, 1
RI	2, 0	2, 0
Rm	2, 0	2, 0
Rr	2, 0	2, 0

2. find the Nash equilibrium/a of the game
3. find the SPNE of the game



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For the following extensive form game assume that  $\sigma = -1$ :

1. find the equivalent strategic form representation
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For the following extensive form game assume that  $\sigma = -1$ :

1. find the equivalent strategic form representation
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	s	d
Ll	2, 5	4, 1
Lm	-1, -1	4, 1
Lr	-3, 7	4, 1
Rl	2, 0	2, 0
Rm	2, 0	2, 0
Rr	2, 0	2, 0

# Games, class examples

For the following extensive form game assume that  $\sigma = -1$ :

1. find the equivalent strategic form representation
2. find the Nash equilibrium/a of the game

	s	d
LI	2, 5	4, 1
Lm	-1, -1	4, 1
Lr	-3, 7	4, 1
RI	2, 0	2, 0
Rm	2, 0	2, 0
Rr	2, 0	2, 0

3. find the SPNE of the game

# Games, class examples

For the following extensive form game assume that  $\sigma = -1$ :

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1. find the equivalent strategic form representation
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3.1 (LI, s)

3.2 (RI, s)

	s	d
LI	2, 5	4, 1
Lm	-1, -1	4, 1
Lr	-3, 7	4, 1
RI	2, 0	2, 0
Rm	2, 0	2, 0
Rr	2, 0	2, 0

# Games, class examples

Now assume that  $\sigma = 2$ :

1. find the equivalent strategic form representation
2. find the Nash equilibrium/a of the game
3. find the SPNE of the game

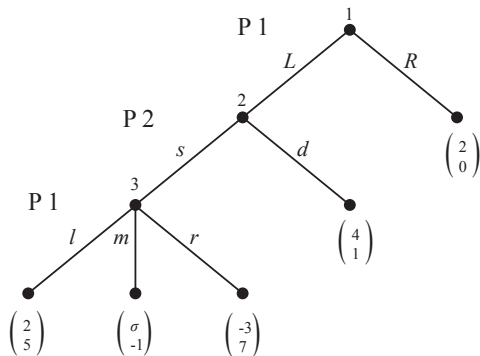


Figure: