I

l m r

II - - - - II

x y x y x y
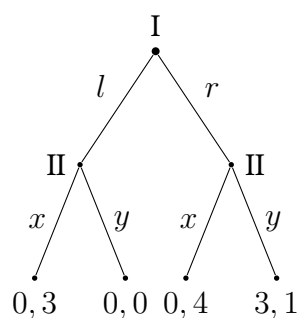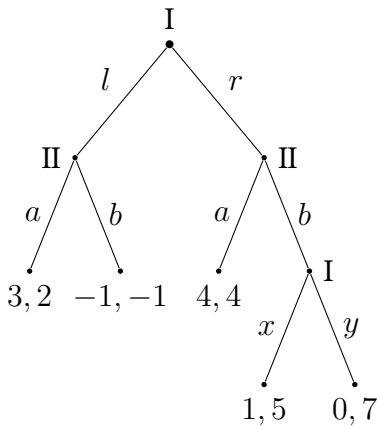
0,3 0,0 0,4 3,1 0,1 1,0

```
\begin{tikzpicture}[grow=down] % дерево
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] % starting node style
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] % decision node style
\tikzstyle{level 1}=[sibling distance=2cm] % расстояние между соседними узлами на одном уровне
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=2cm]
\node[mystart, label=above: {I}] {} % создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут
    child { node[mydot, label=left: {II}] (a) {}
            child {  node[mydot, label=below: {$0,3$}] {}
            edge from parent node[left] {$x$}}
            child {  node[mydot, label=below: {$0,0$}] {}
            edge from parent node[right] {$y$}  }
    edge from parent node[above left] {$l$} }
    child { node[mydot] (b) {}
            child {  node[mydot, label=below: {$0,4$}] {}
            edge from parent node[left] {$x$}}
            child {  node[mydot, label=below: {$3,1$}] {}
            edge from parent node[right] {$y$}  }
    edge from parent node[left] {$m$} }
    child { node[mydot, label=right: {II}] {}
            child {  node[mydot, label=below: {$0,1$}] {}
            edge from parent node[left] {$x$}}
            child {  node[mydot, label=below: {$1,0$}] {}
            edge from parent node[right] {$y$}  }
    edge from parent node[above right] {$r$} } ;
\draw[dashed] (a)--(b);
\end{tikzpicture}
```

I

l   *r*

II   II

x   *y*   *x*   *y*

$0,3$ $0,0$ $0,4$ $3,1$

\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=2cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=2cm]

\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут*
    child { node[mydot, label=left: {II}] (a) {}
            child { node[mydot, label=below: {$0,3$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$0,0$}] {}
            edge from parent node[right] {y} }
    edge from parent node[above left] {l} }
    child { node[mydot, label=right: {II}] {}
            child { node[mydot, label=below: {$0,4$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$3,1$}] {}
            edge from parent node[right] {y} }
    edge from parent node[above right] {r} } ;
\end{tikzpicture}

I

l *r*

II II

a *b* *a* *b*
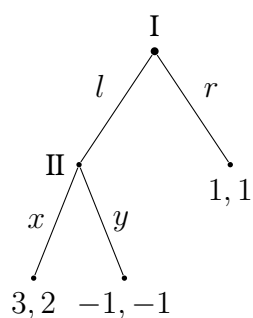
3, 2   −1, −1   4, 4   I

x *y*

1, 5   0, 7

\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=2.5cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=1.2cm]

\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут*
    child { node[mydot, label=left: {II}] (a) {}
            child { node[mydot, label=below: {$3,2$}] {}
            edge from parent node[left] {a}}
            child { node[mydot, label=below: {$-1,-1$}] {}
            edge from parent node[right] {b} }
    edge from parent node[above left] {l} }
    child { node[mydot, label=right: {II}] {}
            child { node[mydot, label=below: {$4,4$}] {}
            edge from parent node[left] {a}}
            child { node[mydot, label=right: {I}] {}
            child { node[mydot, label=below: {$1,5$}] {}
            edge from parent node[left] {x} }
            child { node[mydot, label=below: {$0,7$}] {}
            edge from parent node[right] {y} }
            edge from parent node[right] {b} }
    edge from parent node[above right] {r} } ;
\end{tikzpicture}

I

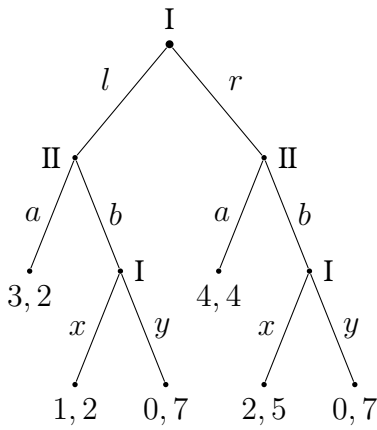l   r

II

x   y

3, 2   −1, −1

1, 1

```
\begin{tikzpicture}[grow=down] % дерево
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] % starting node style
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] % decision node style
\tikzstyle{level 1}=[sibling distance=2cm] % расстояние между соседними узлами на одном уровне
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=2cm]

\node[mystart, label=above: {I}] {} % создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут
    child { node[mydot, label=left: {II}] (a) {}
            child {  node[mydot, label=below: {$3,2$}] {}
            edge from parent node[left] {$x$}}
            child {  node[mydot, label=below: {$-1,-1$}] {}
            edge from parent node[right] {$y$}  }
    edge from parent node[above left] {$l$} }
    child { node[mydot, label=below: {$1,1$}] {}
    edge from parent node[above right] {$r$} } ;
\end{tikzpicture}
```
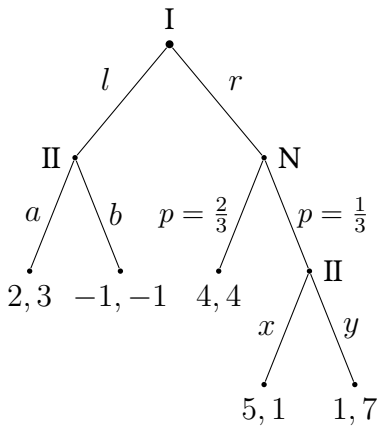
```latex
\begin{tikzpicture}[grow=down] % дерево
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] % starting node style
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] % decision node style
\tikzstyle{level 1}=[sibling distance=2.5cm] % расстояние между соседними узлами на одном уровне
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=1.2cm]

\node[mystart, label=above: {I}] {} % создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут
    child { node[mydot, label=left: {II}] (a) {}
            child {  node[mydot, label=below: {$3,2$}] {}
            edge from parent node[left] {$a$}}
            child {  node[mydot, label=right: {I}] {}
            child { node[mydot, label=below: {$1,2$}] {}
            edge from parent node[left] {$x$} }
            child { node[mydot, label=below: {$0,7$}] {}
            edge from parent node[right] {$y$} }
            edge from parent node[right] {$b$}  }
    edge from parent node[above left] {$l$} }
    child { node[mydot, label=right: {II}] {}
            child {  node[mydot, label=below: {$4,4$}] {}
            edge from parent node[left] {$a$}}
            child {  node[mydot, label=right: {I}] {}
            child { node[mydot, label=below: {$2,5$}] {}
            edge from parent node[left] {$x$} }
            child { node[mydot, label=below: {$0,7$}] {}
            edge from parent node[right] {$y$} }
            edge from parent node[right] {$b$}  }
    edge from parent node[above right] {$r$} } ;
\end{tikzpicture}
```
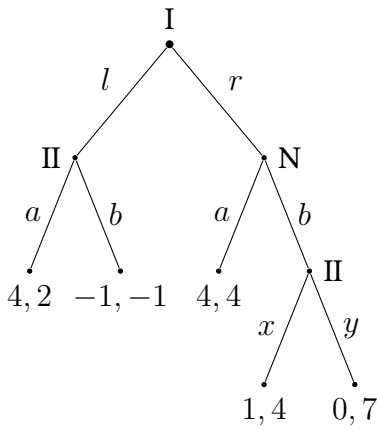
I

l   r

II   N

a   b $p=\frac{2}{3}$ $p=\frac{1}{3}$

II

$2,3$ $-1,-1$ $4,4$

x   y

$5,1$ $1,7$

\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=2.5cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=1.2cm]

\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут*
    child { node[mydot, label=left: {II}] (a) {}
            child { node[mydot, label=below: {$2,3$}] {}
            edge from parent node[left] {a}}
            child { node[mydot, label=below: {$-1,-1$}] {}
            edge from parent node[right] {b} }
    edge from parent node[above left] {l} }
    child { node[mydot, label=right: {N}] {}
            child { node[mydot, label=below: {$4,4$}] {}
            edge from parent node[left] {{\small $p=\frac{2}{3}$}}}
            child { node[mydot, label=right: {II}] {}
            child { node[mydot, label=below: {$5,1$}] {}
            edge from parent node[left] {x} }
            child { node[mydot, label=below: {$1,7$}] {}
            edge from parent node[right] {y} }
            edge from parent node[right] {{\small $p=\frac{1}{3}$}} }
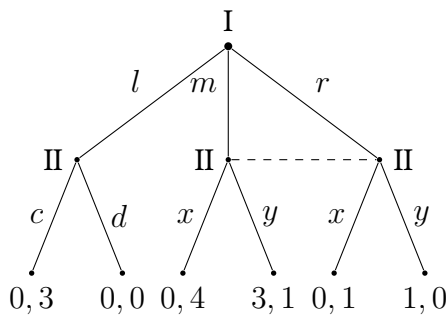   edge from parent node[above right] {r} } ;
\end{tikzpicture}

I

l   *r*

II   N

a   *b*   *a*   *b*

4, 2   −1, −1   4, 4   II

x   *y*

1, 4   0, 7

\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=2.5cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=1.2cm]

\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут*
    child { node[mydot, label=left: {II}] (a) {}
            child { node[mydot, label=below: {$4,2$}] {}
            edge from parent node[left] {a}}
            child { node[mydot, label=below: {$-1,-1$}] {}
            edge from parent node[right] {b} }
    edge from parent node[above left] {l} }
    child { node[mydot, label=right: {N}] {}
            child { node[mydot, label=below: {$4,4$}] {}
            edge from parent node[left] {a}}
            child { node[mydot, label=right: {II}] {}
            child { node[mydot, label=below: {$1,4$}] {}
            edge from parent node[left] {x} }
            child { node[mydot, label=below: {$0,7$}] {}
            edge from parent node[right] {y} }
            edge from parent node[right] {b} }
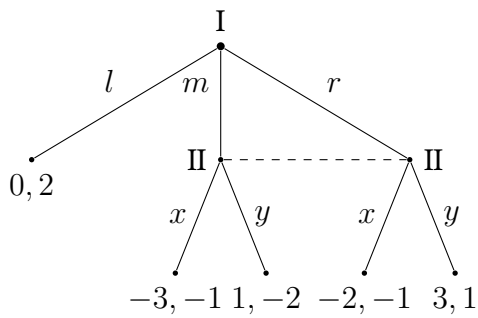   edge from parent node[above right] {r} } ;
\end{tikzpicture}

```latex
\begin{tikzpicture}[grow=down] % дерево
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] % starting node style
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] % decision node style
\tikzstyle{level 1}=[sibling distance=2cm] % расстояние между соседними узлами на одном уровне
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=2cm]

\node[mystart, label=above: {I}] {} % создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут
    child { node[mydot, label=left: {II}] {}
            child {  node[mydot, label=below: {$0,3$}] {}
            edge from parent node[left] {$c$}}
            child {  node[mydot, label=below: {$0,0$}] {}
            edge from parent node[right] {$d$}  }
    edge from parent node[above left] {$l$} }
    child { node[mydot, label=left: {II}] (a) {}
            child {  node[mydot, label=below: {$0,4$}] {}
            edge from parent node[left] {$x$}}
            child {  node[mydot, label=below: {$3,1$}] {}
            edge from parent node[right] {$y$}  }
    edge from parent node[above left] {$m$} }
    child { node[mydot, label=right: {II}] (b) {}
            child {  node[mydot, label=below: {$0,1$}] {}
            edge from parent node[left] {$x$}}
            child {  node[mydot, label=below: {$1,0$}] {}
            edge from parent node[right] {$y$}  }
    edge from parent node[above right] {$r$} } ;
\draw[dashed] (a)--(b);
\end{tikzpicture}
```

I
l   m   r
        II - - - - - - II
0, 2
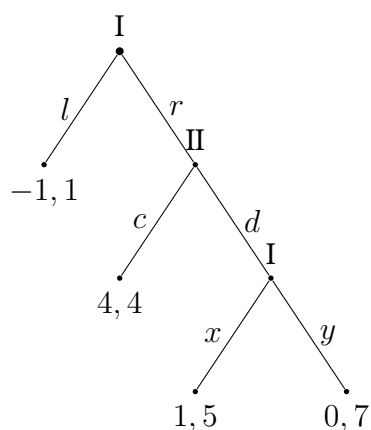   x   y   x   y

−3, −1 1, −2 −2, −1 3, 1

\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=2.5cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=1.2cm]
\tikzstyle{level 3}=[sibling distance=2cm]

\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут...*
    child { node[mydot, label=below: {$0,2$}] {}
    edge from parent node[above left] {l} }
    child { node[mydot, label=left: {II}] (a) {}
            child { node[mydot, label=below: {$-3,-1$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$1,-2$}] {}
            edge from parent node[right] {y} }
    edge from parent node[above left] {m} }
    child { node[mydot, label=right: {II}] (b) {}
            child { node[mydot, label=below: {$-2,-1$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$3,1$}] {}
            edge from parent node[right] {y} }
    edge from parent node[above right] {r} } ;
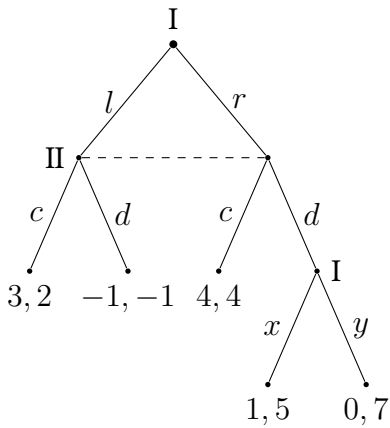\draw[dashed] (a)--(b);
\end{tikzpicture}

I

l   *r*
            II

−1, 1

c   *d*
            I

4, 4

x   *y*

1, 5   0, 7

\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=2cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=2cm]
\tikzstyle{level 3}=[sibling distance=2cm]
\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут*
   child { node[mydot, label=below: {$-1,1$}] {}
   edge from parent node[left] {l} }
   child { node[mydot, label=above: {II}] {}
      child { node[mydot, label=below: {$4,4$}] {}
      edge from parent node[left] {c} }
      child { node[mydot, label=above: {I}] (b) {}
            child { node[mydot, label=below: {$1,5$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$0,7$}] {}
            edge from parent node[right] {y} }
      edge from parent node[right] {d} }
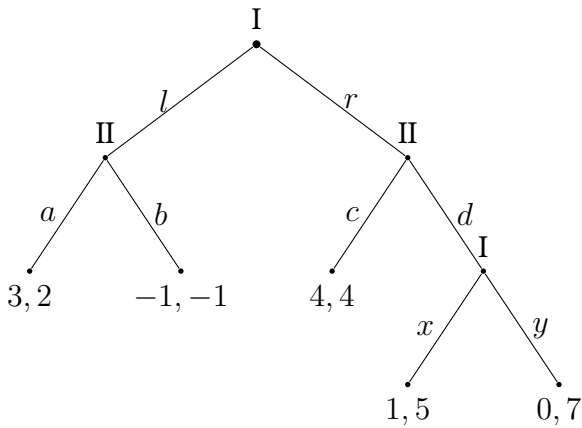   edge from parent node[right] {r} };
\end{tikzpicture}

\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=2.5cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=1.3cm]
\tikzstyle{level 3}=[sibling distance=1.3cm]
\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут*
    child { node[mydot, label=left: {II}] (a) {}
        child { node[mydot, label=below: {$3,2$}] {}
        edge from parent node[left] {c} }
        child { node[mydot, label=below: {$-1,-1$}] (b) {}
        edge from parent node[right] {d} }
    edge from parent node[left] {l} }
    child { node[mydot] (b) {}
        child { node[mydot, label=below: {$4,4$}] {}
        edge from parent node[left] {c} }
        child { node[mydot, label=right: {I}] {}
                child { node[mydot, label=below: {$1,5$}] {}
                edge from parent node[left] {x}}
                child { node[mydot, label=below: {$0,7$}] {}
                edge from parent node[right] {y} }
    edge from parent node[right] {d} }
    edge from parent node[right] {r} };
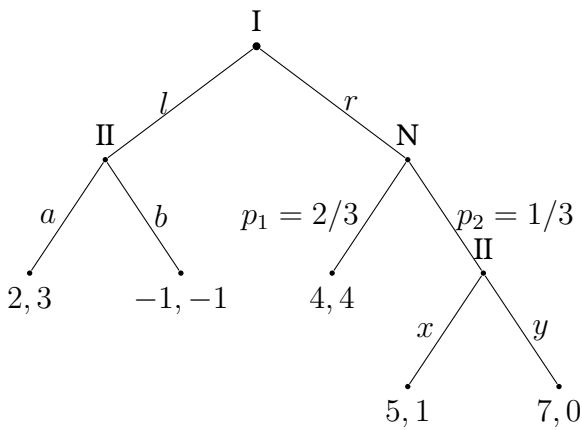\draw[dashed] (a)--(b);
\end{tikzpicture}

```
\begin{tikzpicture}[grow=down] % дерево
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] % starting node style
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] % decision node style
\tikzstyle{level 1}=[sibling distance=4cm] % расстояние между соседними узлами на одном уровне
\tikzstyle{level 2}=[sibling distance=2cm]
\tikzstyle{level 3}=[sibling distance=2cm]
\node[mystart, label=above: {I}] {} % создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут
    child { node[mydot, label=above: {II}] {}
        child { node[mydot, label=below: {$3,2$}] {}
    edge from parent node[left] {$a$} }
        child {  node[mydot, label=below: {$-1,-1$}] {}
    edge from parent node[right] {$b$} }
    edge from parent node[left] {$l$} }
    child { node[mydot, label=above: {II} ] {}
        child { node[mydot, label=below: {$4,4$}] {}
        edge from parent node[left] {$c$} }
        child { node[mydot, label=above: {I}] (b) {}
            child { node[mydot, label=below: {$1,5$}] {}
            edge from parent node[left] {$x$}}
            child {  node[mydot, label=below: {$0,7$}] {}
            edge from parent node[right] {$y$}  }
        edge from parent node[right] {$d$} }
    edge from parent node[right] {$r$} };
\end{tikzpicture}
```
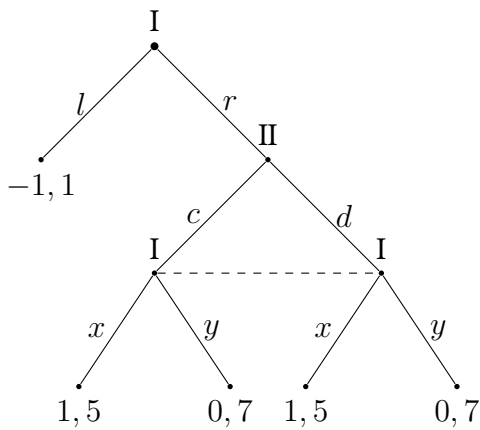
\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=4cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=2cm]
\tikzstyle{level 3}=[sibling distance=2cm]
\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "N" сверху и пустым текстом внут*
    child { node[mydot, label=above: {II}] {}
        child { node[mydot, label=below: {$2,3$}] {}
    edge from parent node[left] {a} }
        child { node[mydot, label=below: {$-1,-1$}] {}
    edge from parent node[right] {b} }
    edge from parent node[left] {l} }
    child { node[mydot, label=above: {N}] {}
        child { node[mydot, label=below: {$4,4$}] {}
        edge from parent node[left] {$p_1=2/3$} }
        child { node[mydot, label=above: {II}] (b) {}
            child { node[mydot, label=below: {$5,1$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$7,0$}] {}
            edge from parent node[right] {y} }
        edge from parent node[right] {$p_2=1/3$} }
    edge from parent node[right] {r} };
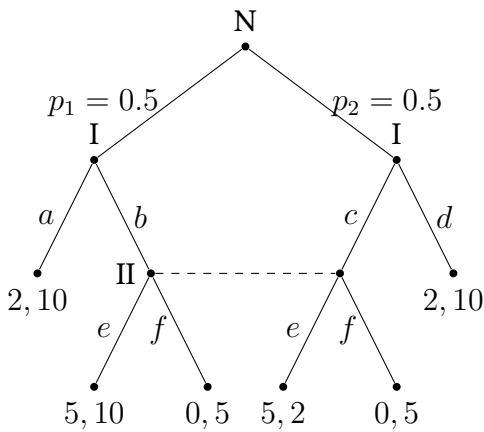\end{tikzpicture}

\begin{tikzpicture}[grow=down] *% дерево*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% starting node style*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{level 1}=[sibling distance=3cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=3cm]
\tikzstyle{level 3}=[sibling distance=2cm]
\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "I" сверху и пустым текстом внут*
    child { node[mydot, label=below: {$-1,1$}] {}
    edge from parent node[left] {l} }
    child { node[mydot, label=above: {II}] {}
        child { node[label=above: {I}] (a) {}
            child { node[mydot, label=below: {$1,5$}] {}
                edge from parent node[left] {x}}
            child { node[mydot, label=below: {$0,7$}] {}
                edge from parent node[right] {y} }
        edge from parent node[left] {c} }
        child { node[mydot, label=above: {I}] (b) {}
            child { node[mydot, label=below: {$1,5$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$0,7$}] {}
                edge from parent node[right] {y} }
        edge from parent node[right] {d} }
    edge from parent node[right] {r} };
\draw[dashed] (a)--(b);
\end{tikzpicture}

```
\begin{tikzpicture}[grow=down] % дерево
\tikzstyle{mydot} = [circle, minimum width=3pt,fill, inner sep=0pt] % размеры точки в центре узла
\tikzstyle{level 1}=[sibling distance=4cm] % расстояние между соседними узлами на одном уровне
\tikzstyle{level 2}=[sibling distance=1.5cm]
\tikzstyle{level 3}=[sibling distance=1.5cm]

\node[mydot, label=above: {N}] {}
    child { node[mydot, label=above: {I}] {}
        child { node[mydot, label=below: {$2,10$}] {}
            edge from parent node[left] {$a$} }
        child { node[mydot, label=left: {II} ] (a) {}
            child { node[mydot, label=below: {$5,10$}] {}
            edge from parent node[left] {$e$} }
            child { node[mydot, label=below: {$0,5$}] {}
            edge from parent node[left] {$f$} }
        edge from parent node[right] {$b$} }
    edge from parent node[left] {$p_1=0.5$} }
    child { node[mydot, label=above: {I}] {}
        child { node[mydot] (b) {}
            child {  node[mydot, label=below: {$5,2$}] {}
            edge from parent node[left] {$e$} }
            child {  node[mydot, label=below: {$0,5$}] {}
            edge from parent node[left] {$f$} }
        edge from parent node[left] {$c$} }
        child {  node[mydot, label=below: {$2,10$}] {}
        edge from parent node[right] {$d$} }
    edge from parent node[right] {$p_2=0.5$} } ;
\draw[dashed] (a)--(b);
\end{tikzpicture}
```
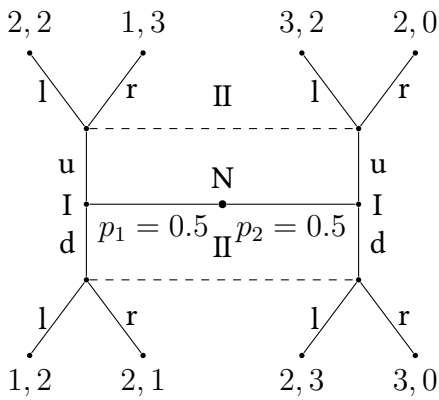
$2,2$ $1,3$ $3,2$ $2,0$

l   r   II   l   r

u   u
I   N   I
d $p_1 = 0.5$ II $p_2 = 0.5$ d

l   r   l   r

$1,2$ $2,1$ $2,3$ $3,0$

\begin{tikzpicture} % Паук
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] % decision node style
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] % strating node style
\tikzstyle{level 1}=[sibling distance=2cm] % расстояние между соседними узлами на одном уровне
\tikzstyle{level 1}=[level distance=1.8cm] % длина веточки на первом уровне
\tikzstyle{level 2}=[sibling distance=2cm]
\tikzstyle{level 2}=[level distance=1cm]
\tikzstyle{level 3}=[sibling distance=2cm]
\tikzstyle{level 3}=[level distance=1cm]

%
\node[mystart, label=above: {N}] {}
    child[grow=left] {node[mydot, label=left: {I}] {} % left side of the spider
    child[grow=up] {node[mydot] (U1) {} [grow=up]
        child {node[mydot, label=above: {$1,3$}] {}
        edge from parent node[right] {r} }
        child {node[mydot, label=above: {$2,2$}] {}
        edge from parent node[left] {l} }
    edge from parent node[left] {u} }
    child[grow=down] {node[mydot] (D1) {} [grow=down]
        child {node[mydot, label=below: {$1,2$}] {}
        edge from parent node[left] {l} }
        child {node[mydot, label=below: {$2,1$}] {}
        edge from parent node[right] {r} }
    edge from parent node[left] {d} }
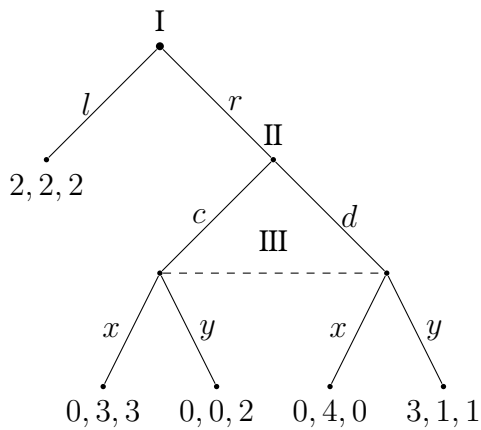   edge from parent node[below] {$p_1=0.5$} }
%
    child[grow=right] {node[mydot, label=right: {I}] {} % right side of the spider
    child[grow=up] {node[mydot] (U2) {} [grow=up]
        child {node[mydot, label=above: {$2,0$}] {}
        edge from parent node[right] {r} }
        child {node[mydot, label=above: {$3,2$}] {}
        edge from parent node[left] {l} }
    edge from parent node[right] {u} }
    child[grow=down] {node[mydot] (D2) {} [grow=down]
        child {node[mydot, label=below: {$2,3$}] {}
        edge from parent node[left] {l} }
        child {node[mydot, label=below: {$3,0$}] {}
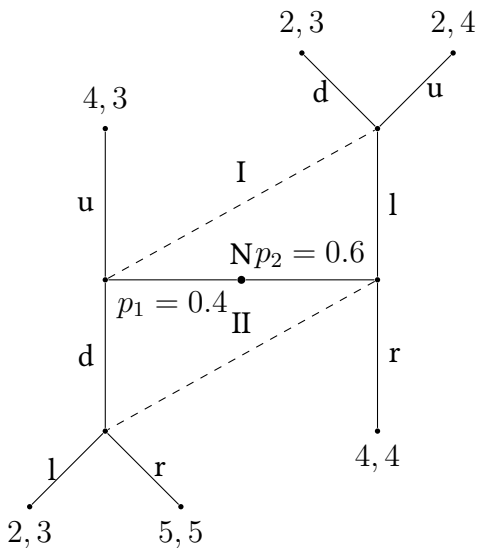   edge from parent node[right] {r} }

    edge from parent node[right] {d} }
    edge from parent node[below] {$p_2=0.5$} } ;
\draw[dashed] (U1)--node[label=above:II] {}(U2);
\draw[dashed] (D1)--node[label=above:II] {}(D2);
\end{tikzpicture}

I

l   r
                II
2, 2, 2

c   d
            III

x   y   x   y

0, 3, 3   0, 0, 2   0, 4, 0   3, 1, 1

\begin{tikzpicture} *% три игрока с выходом первого*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% strating node style*
\tikzstyle{level 1}=[level distance=1.5cm] *% длина линии*
\tikzstyle{level 2}=[level distance=1.5cm] *% длина линии*
\tikzstyle{level 3}=[level distance=1.5cm] *% длина линии*
\tikzstyle{level 1}=[sibling distance=3cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 2}=[sibling distance=3cm]
\tikzstyle{level 3}=[sibling distance=1.5cm]
\node[mystart, label=above: {I}] {} *% создаем узел типа mydot, с пометкой "I" сверху и пустым текстом внут*
   child { node[mydot, label=below: {$2,2,2$}] {}
   edge from parent node[left] {l} }
   child { node[mydot, label=above: {II}] {}
      child { node[mydot] (a) {}
            child { node[mydot, label=below: {$0,3,3$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$0,0,2$}] {}
            edge from parent node[right] {y} }
      edge from parent node[left] {c} }
      child { node[mydot] (b) {}
            child { node[mydot, label=below: {$0,4,0$}] {}
            edge from parent node[left] {x}}
            child { node[mydot, label=below: {$3,1,1$}] {}
            edge from parent node[right] {y} }
      edge from parent node[right] {d} }
   edge from parent node[right] {r} };
\draw[dashed] (a)--node[label=above: {III}] {}(b);
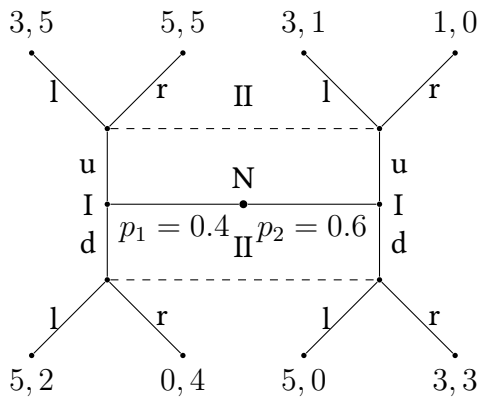\end{tikzpicture}

```
\begin{tikzpicture} % укороченный паук
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] % decision node style
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] % strating node style
\tikzstyle{level 1}=[sibling distance=2cm] % расстояние между соседними узлами на одном уровне
\tikzstyle{level 1}=[level distance=1.8cm] % длина веточки на первом уровне
\tikzstyle{level 2}=[sibling distance=2cm]
\tikzstyle{level 2}=[level distance=2cm]
\tikzstyle{level 3}=[sibling distance=2cm]
\tikzstyle{level 3}=[level distance=1cm]


%
\node[mystart, label=above: {N}] {}
   child[grow=left] {node[mydot] (ia) {} % left side of the spider
   child[grow=up] {node[mydot,label=above: {$4,3$}] {} [grow=up]
   edge from parent node[left] {u} }
   child[grow=down] {node[mydot] (iib) {} [grow=down]
      child {node[mydot, label=below: {$2,3$}] {}
      edge from parent node[left] {l} }
      child {node[mydot, label=below: {$5,5$}] {}
      edge from parent node[right] {r} }
   edge from parent node[left] {d} }
   edge from parent node[below] {$p_1=0.4$} }
%
   child[grow=right] {node[mydot] (iia) {} % right side of the spider
   child[grow=up] {node[mydot] (ib) {} [grow=up]
      child {node[mydot, label=above: {$2,4$}] {}
      edge from parent node[right] {u} }
      child {node[mydot, label=above: {$2,3$}] {}
      edge from parent node[left] {d} }
   edge from parent node[right] {l} }
   child[grow=down] {node[mydot,label=below: {$4,4$}] {} [grow=down]
   edge from parent node[right] {r} }
   edge from parent node[above] {$p_2=0.6$} } ;
\draw[dashed] (ia)--node[label=above:I] {}(ib);
\draw[dashed] (iia)--node[label=above:II] {}(iib);
```

\end{tikzpicture}

\end{tikzpicture}

$3,5$ $5,5$ $3,1$ $1,0$

l   r   II   l   r

u   u

N

I   I

$p_1 = 0.4$ II $p_2 = 0.6$

d   d

l   r   l   r

$5,2$ $0,4$ $5,0$ $3,3$

\begin{tikzpicture} *% Паук*
\tikzstyle{mydot} = [circle, minimum width=2pt,fill, inner sep=0pt] *% decision node style*
\tikzstyle{mystart} = [circle, minimum width=3pt,fill, inner sep=0pt] *% strating node style*
\tikzstyle{level 1}=[sibling distance=2cm] *% расстояние между соседними узлами на одном уровне*
\tikzstyle{level 1}=[level distance=1.8cm] *% длина веточки на первом уровне*
\tikzstyle{level 2}=[sibling distance=2cm]
\tikzstyle{level 2}=[level distance=1cm]
\tikzstyle{level 3}=[sibling distance=2cm]
\tikzstyle{level 3}=[level distance=1cm]

%
\node[mystart, label=above: {N}] {}
   child[grow=left] {node[mydot, label=left: {I}] {} *% left side of the spider*
   child[grow=up] {node[mydot] (U1) {} [grow=up]
      child {node[mydot, label=above: {$5,5$}] {}
      edge from parent node[right] {r} }
      child {node[mydot, label=above: {$3,5$}] {}
      edge from parent node[left] {l} }
   edge from parent node[left] {u} }
   child[grow=down] {node[mydot] (D1) {} [grow=down]
      child {node[mydot, label=below: {$5,2$}] {}
      edge from parent node[left] {l} }
      child {node[mydot, label=below: {$0,4$}] {}
      edge from parent node[right] {r} }
   edge from parent node[left] {d} }
   edge from parent node[below] {$p\_1=0.4$} }
%
   child[grow=right] {node[mydot, label=right: {I}] {} *% right side of the spider*
   child[grow=up] {node[mydot] (U2) {} [grow=up]
      child {node[mydot, label=above: {$1,0$}] {}
      edge from parent node[right] {r} }
      child {node[mydot, label=above: {$3,1$}] {}
      edge from parent node[left] {l} }
   edge from parent node[right] {u} }
   child[grow=down] {node[mydot] (D2) {} [grow=down]
      child {node[mydot, label=below: {$5,0$}] {}
      edge from parent node[left] {l} }
      child {node[mydot, label=below: {$3,3$}] {}
      edge from parent node[right] {r} }

```
    edge from parent node[right] {d} }
    edge from parent node[below] {$p_2=0.6$} } ;
\draw[dashed] (U1)--node[label=above:II] {}(U2);
\draw[dashed] (D1)--node[label=above:II] {}(D2);
\end{tikzpicture}
```