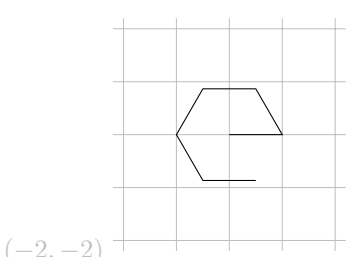
Info 1 **2023 ősz 2. zh**

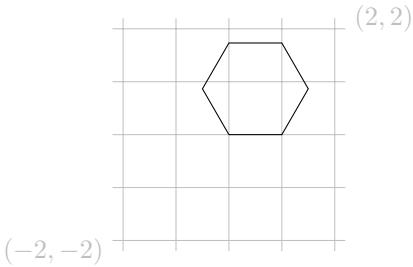
NÉV* NEPTUN KÓD* *000*

1.

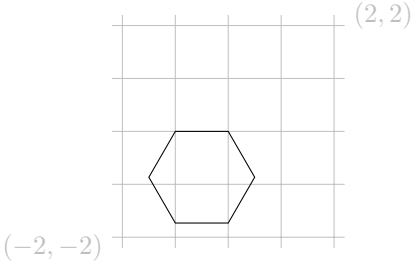
(A)



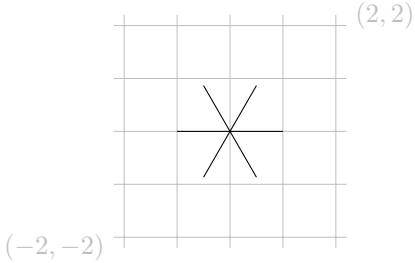
(B)



(C)



(D)



(E) `hibás forrás`

Forrás	Eredmény

`\begin{tikzpicture}`
` \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$}`
` grid (2.2,2.2) node[above,right]{$(2,2)$};`
` \draw (0,0) foreach \x in {0, 60,..., 300} {-- ++(\x:1) };`
`\end{tikzpicture}`
	B

`\begin{tikzpicture}`
` \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$}`
` grid (2.2,2.2) node[above,right]{$(2,2)$};`
` \draw (0,0) foreach \x in {300, 240,..., 0} {-- ++(\x:1) };`
`\end{tikzpicture}`
	C

`\begin{tikzpicture}`
` \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$}`
` grid (2.2,2.2) node[above,right]{$(2,2)$};`
` \foreach \x in {0, 60,..., 300} {\draw (0,0) -- (\x:1) };`
`\end{tikzpicture}`
	E

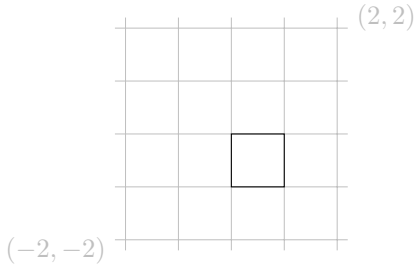
`\begin{tikzpicture}`
` \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$}`
` grid (2.2,2.2) node[above,right]{$(2,2)$};`
` \foreach \x in {0, 60,..., 300} {\draw (0,0) -- (\x:1) ;}`
`\end{tikzpicture}`
	D

```
\begin{tikzpicture}
 \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$}
  grid (2.2,2.2) node[above,right]{$(2,2)$};
 \draw (0,0) foreach \x in {0, 60,..., 300} {-- (\x:1) };
\end{tikzpicture}
```

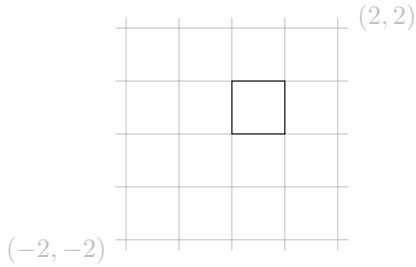
A

2.

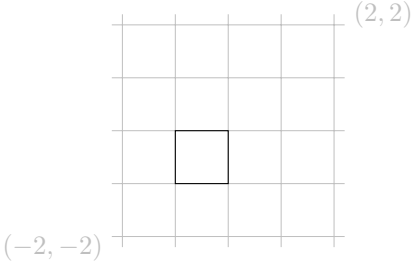
(A)



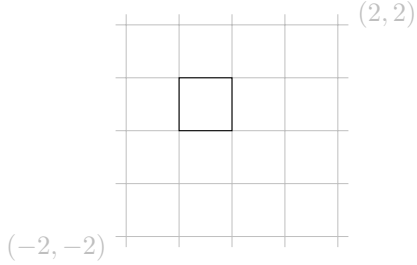
(B)



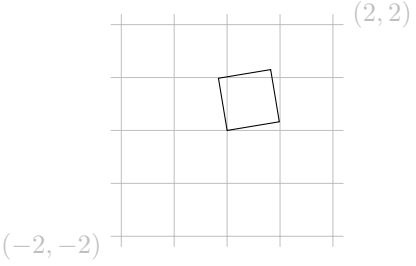
(C)



(D)



(E)



Forrás	Eredmény

`\begin{tikzpicture}`
` \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$}`
` grid (2.2,2.2) node[above,right]{$(2,2)$};`
` \draw[yscale=-1] (0,0) rectangle (1,1) ;`
`\end{tikzpicture}`
	A

`\begin{tikzpicture}`
` \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$}`
` grid (2.2,2.2) node[above,right]{$(2,2)$};`
` \draw[rotate=3*pi] (0,0) rectangle (1,1) ;`
`\end{tikzpicture}`
	E

\begin{tikzpicture} \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$} grid (2.2,2.2) node[above,right]{$(2,2)$}; \draw[shift={(0,1)}] (0,0) rectangle (1,-1) ; \end{tikzpicture}	B
\begin{tikzpicture} \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$} grid (2.2,2.2) node[above,right]{$(2,2)$}; \draw[rotate={deg(pi/2)}] (0,0) rectangle (1,1) ; \end{tikzpicture}	D
\begin{tikzpicture} \draw[very thin, gray!50](-2.2,-2.2) node[below,left]{$(-2,-2)$} grid (2.2,2.2) node[above,right]{$(2,2)$}; \draw[scale=-1] (0,0) rectangle (1,1) ; \end{tikzpicture}	C

3. (A) `4` (B) `1/2` (C) `1` (D) `2`

Forrás	Eredmény
`a = mod(5,3); 1/a`	D
`a = 5 % 3; a^2`	A
`a = 5 % 3; 1/a`	B
`a = mod(5,3); a^2`	C

4. (A) `y^3+x^2` (B) `y^3+y^2` (C) `x^3+x^2`

Forrás	Eredmény
`var('y'); (x^2+y^3).subs(x=y).subs(y=x)`	C
`var('y'); x^2+y^3.subs(x=y)`	A
`var('y'); (x^2+y^3).subs(x=y)`	B

5. (A) `y^2 + 2` (B) `(y - 1.41421356237310*I) * (y + 1.41421356237310*I)` (C) `(y + 1) * (y + 2)`

Forrás	Eredmény
`y = polygen(CC,'y'); print(factor(y^2 + 2))`	B
`y = polygen(GF(3),'y'); print(factor(y^2 + 2))`	C
`y = polygen(QQ,'y'); print(factor(y^2 + 2))`	A