NCSq test			
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A diagram of empty cells.			
A diagram of objects.			
$oxed{D} oxed{E}$			
A diagram of objects and arrows.			
$egin{array}{c c} A \longrightarrow B \\ \hline & & \\ \end{array}$			
$\stackrel{\downarrow}{C} \longrightarrow \stackrel{\downarrow}{D}$			
A diagonal arrow.			
A diagonal arrow.			
$A \longrightarrow B$			
\overline{C}			
Another diagonal arrow.			
$A \longrightarrow B \longrightarrow C$			
$A \longrightarrow B \longrightarrow C$			
D E			
Changing arrow styles.			
$A \longrightarrow B$			
$\stackrel{\downarrow, }{C} \longrightarrow D$			
Arrow labels.			

$ \begin{array}{ccc} A & \xrightarrow{f} & B \\ \downarrow g & & \downarrow h \\ C & \xrightarrow{E} & D \end{array} $
Complex example.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Diagonal arrows with labels. $ A \xrightarrow{f} X $ filler $ B \xrightarrow{g} Y $
Stacks.
$A \xrightarrow{f} B$
Diagram transformation.

	$A \underset{g}{\longleftrightarrow} B$ $\downarrow \qquad \qquad \downarrow \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \downarrow \qquad \qquad \downarrow \qquad \qquad \downarrow \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \downarrow \qquad \qquad \qquad $	
-		
1	$C \xrightarrow{\overline{k}} D$	
Invert vertically.		
1		
	$ \begin{array}{c} C \xrightarrow{k} D \\ \downarrow g & \uparrow \\ A \xrightarrow{f_1} B \end{array} $	
	$A \xrightarrow{f_{\mathbb{I}}} B$	
Invert horizontally.		
-	$B \stackrel{f_{1}}{\longleftarrow} A$	
1		
-	$B \overset{f_{1}}{\longleftrightarrow} A$ $\downarrow \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \downarrow \qquad \qquad \qquad \qquad \qquad \downarrow \qquad $	
Transpose.		
-	$A \xrightarrow{g} C$ $I_1 \downarrow I_2 \downarrow I_1 \downarrow k$	
-	$egin{array}{c} \downarrow \swarrow & \downarrow \ B \longrightarrow D \end{array}$	
Math command.		
	$ \begin{pmatrix} A \longrightarrow B \\ \downarrow \\ C \longrightarrow D \end{pmatrix} = \begin{pmatrix} A \longrightarrow B \\ \downarrow \\ C' \longrightarrow D' \end{pmatrix} $	
-	$egin{pmatrix} \downarrow & \downarrow & \downarrow \\ E \longrightarrow E \end{pmatrix}$	
-2-arrows.		
- allows.		
1		
1		

