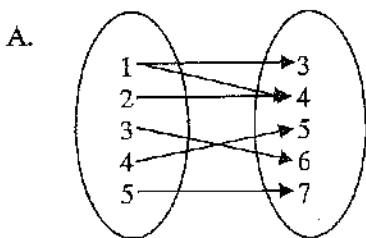


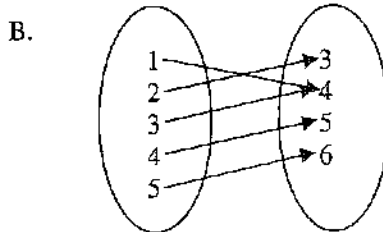
1. Describe the difference between a relation and a function.

relation = ordered pairs w/ inputs & outputs
function = ordered pairs w/ each input w/ its own output

2. Does the mapping diagram represent a function? Explain.

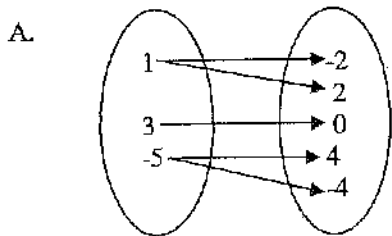


No - repeating X-values



Yes!

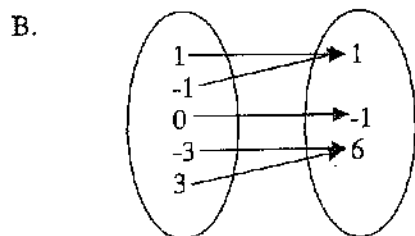
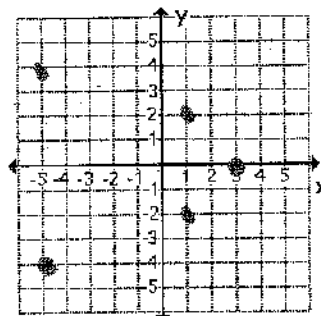
3. Sketch a graph of the relation. Is the relation a function?



Domain: (1, 1, 3, -5, -5)

Range: (-2, 2, 0, 4, -4)

Function? NO!

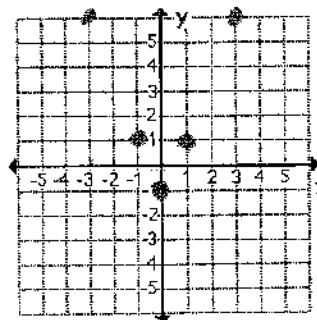


Domain: (1, -1, 0, -3, 3)

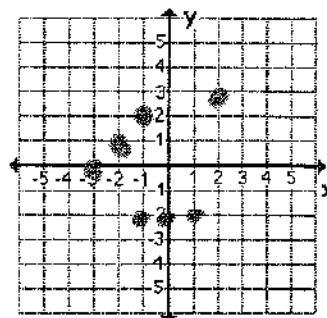
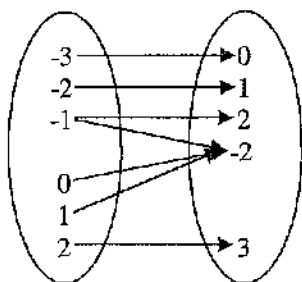
Range: (1, -1, 6)

Function?

Yes!



C.



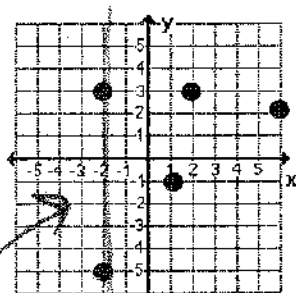
Domain: $\{-3, -2, -1, 0, 1, 2\}$

Range: $\{0, 1, 2, -2, 3\}$

Function? **NO!**

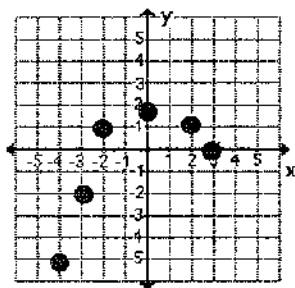
4. Use a table to describe the relation.

5. Use a mapping diagram to describe the relation.



Is the relation a function?

NO!



Is the relation a function?

Yes!

6. Determine whether the relation is a function. If it is not a function, circle the ordered pairs that cause it not to be a function.

A. Yes **No** $\{(-2, 2), (0, 5), (1, 6), (1, 7), (2, -1), (3, 2)\}$

B. **Yes** No $\{(0, 1), (2, -1), (3, 2), (4, 2), (5, 3), (-5, 1)\}$

C. Yes **No** $\{(0, -5), (1, 3), (2, 2), (0, 4), (-5, 6), (3, 4)\}$

~~7. If the domain of $f(x)$ is the set of integers, find the range of $f(x)$ such that $f(x) = 2x^2 - 3x + 1$. On the range~~