GRAPH RECOGNITION LAB—SORTING EXTENSION

Have the students cut out the graph cards. Try two types of sorts: open and closed.

1. Open—Students sort the graphs into groups (with a minimum of 3 in each group) that share a common characteristic. Have them state/explain the characteristic.
2. Closed—Students sort the graphs into categories given by the teacher. A few examples for categories:

> domain: all real numbers, all real numbers except 0, x > 0
>
> continuous versus discontinuous
>
> functions with minimum (or maximum) values
>
> global behavior: as x approaches $\pm\infty$, y approaches 0
>
> as x approaches $\pm\infty$, no limit exists

Sample Sorting mat:

SORT—GRAPH RECOGNITION LAB
Put 3 or more cards, which share a common characteristic, in each column.
State/explain the characteristic for each column.

Characteristic:	Characteristic:	Characteristic:

SORT—GRAPH RECOGNITION LAB		
Put 3 or more cards, which share a common characteristic, in each column.		
State/explain the characteristic for each column.		
Characteristic:	Characteristic:	Characteristic:

SORT—GRAPH RECOGNITION LAB

Put 3 or more cards, which share a common characteristic, in each column.

State/explain the characteristic for each column.

3	1	6
4	2	10
12	5	22
21	23	
Characteristic:	Characteristic:	Characteristic:

SORT—GRAPH RECOGNITION LAB

Put 3 or more cards, which share a common characteristic, in each column.

State/explain the characteristic for each column.

3	1	6
8	16	10
12	18	13
22	23	15
Characteristic:	Characteristic:	Characteristic: