







HOW TO USE A CHART

A *Mind Benders*® problem gives you two lists of things and asks you to match each item in one list with an item in the other list by writing yes or no. In Activity 1, the student will match three people with their favorite way to travel. This activity is completed below as an example.

Example: Activity 1







A girl, a boy, and their mom have favorite ways to travel. Use the clues and chart to find each one's favorite way to travel.

1. The mom's ride never leaves the ground.
2. The boy's ride is the fastest.

Solution:

1. Read Clue 1. Look at each of the rides shown at the top of the chart. The boat cannot belong to the mom because it travels on water, nor can the jet because it travels in the air. The car must belong to the mom. Therefore, the car cannot belong to the boy or the girl.
2. Mark your answers on the chart. Draw Y for yes in the **box under the car in the mom's row**. Draw N for no in the other two boxes under the car and in the other two boxes in the Mom's row. Look at your chart: it shows the car belongs to the mom, not to the girl or boy.
3. Read Clue 2. The boy's ride is the fastest. Is a jet faster than a boat? This clue tells us that the boy's ride is the jet.
4. Mark your answers on the chart. Draw Y for yes in the box under the jet in the boy's row. Draw N for no in the other empty box under the jet and in the other empty box in the boy's row. This means that the jet belongs to the boy, not to the girl.
5. Look at the chart. If the jet belongs to the boy and the car belongs to the mom, then the boat must belong to the girl. Draw Y for yes in the last empty box.





			
	N		
	N		
	Y	N	N


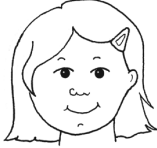


N		N
N	N	Y
Y	N	N

N	Y	N
N	N	Y
Y	N	N

ACTIVITY 11

DIRECTIONS: Fill in the chart using Y for yes or N for no as you solve the puzzle.











				
				
				
				

Two students and two teachers have favorite fruits. Find each person's favorite fruit.

1. The name of the boy's favorite fruit has the most syllables.
2. **Mr. Fox's favorite fruit has the fewest syllables.**
3. Ms. Sharp's fruit grows larger than the girl's fruit.


5.



	N ₂	Y ₂	N ₁	N ₂
	N ₂	N ₂	N ₁	Y ₂
	Y ₂	N ₂	N ₁	N ₂
	N ₁	N ₁	Y ₁	N ₁

Clue 1 states that the girl with the straight hair lives in the house with the fewest windows, the 1-window house. Clue 2 states that the boy wearing a cap lives in the house with one more window than that of the curly-haired girl's house. So, he lives in the 3-window house and the curly-haired girl lives in the 2-window house. Lastly, the boy not wearing a cap lives in the 5-window house.


6.







Pam	N ₁	N ₁	Y ₁	N ₁
Dawn	N ₁	N ₁	N ₁	Y ₂
Rae	N ₂	Y ₂	N ₁	N ₂
Jan	Y ₂	N ₂	N ₁	N ₂

Clue 1 states that Pam wears a cap and is taller than Rae and Jan. Only one girl has a cap, which means she is Pam. She's also taller than two of the girls, which means that Rae and Jan are the two girls on the left. Clue 2 states that Rae is shorter than Dawn, but taller than Jan. So, Jan is on the far left, Rae is second from the left, and Dawn is on the far right.

7.







	N ₂	Y ₂	N ₁	N ₁
	Y ₂	N ₂	N ₁	N ₁
	N ₁	N ₁	N ₃	Y ₃
	N ₁	N ₁	Y ₃	N ₃

Based on clue 1, the dad's shape and the mom's shape are the rectangle and the pentagon, which have different lengths. So the girl and boy have the circle and the square. Clue 2 states that the girl's shape has no straight lines, so it is the circle and the boy's shape is the square. Clue 3 states that the boy's shape has one less side than the mom's, so the mom must have the pentagon and the dad has the rectangle.

8.

P O M K

	N ₁	Y ₂	N ₂	N ₂
	N ₁	N ₂	N ₃	Y ₃
	N ₁	N ₂	Y ₃	N ₃
	Y ₁	N ₁	N ₁	N ₁

Clue 1 states that the grandfather's letter has both straight lines and curves, so it isn't M, K, or O. It has to be P. Clue 2 states that the mom's and girl's letters have only straight lines, so they're either M or K. That means that the boy's letter is O. Clue 3 states that the mom's letter is the first sound **in the word for "wet dirt,"** which is "mud." So, mom's letter is M, which leaves the K as the girl's letter.

9.

	Y ₃	N ₃	N ₃	N ₁
	N ₂	Y ₃	N ₃	N ₁
	N ₃	N ₃	Y ₃	N ₁
	N ₁	N ₁	N ₁	Y ₁

Clue 1 states that the girl’s house has more than two windows and is not the widest. The girl’s house is the 5-window house. Clue 2 states that the fireman’s house has fewer than three windows, so it is either the 1- or 2-window house. Finally, Clue 3 states that the doctor’s house has one more window than the fireman’s and two more windows than the boy’s. So, the 2-window house is the fireman’s, while the 3-window house belongs to the doctor. The 1-window house is the boy’s.

10.

	A	B	C	D
	N ₁	N ₁	N ₁	Y ₁
	Y ₂	N ₂	N ₁	N ₁
	N ₂	Y ₂	N ₁	N ₁
	N ₁	N ₁	Y ₁	N ₁

Clue 1 states that Dona has curly hair like her father, Carlos. The father’s name begins with C, Carlos, and the curly-haired girl is Dona, which begins with D. Clue 2 states that Anita is younger than Bonita and older than Dona, so Bonita is the mother’s name. Anita is the girl with straight hair.

11.

	Y ₁	N ₁	N ₁	N ₁
	N ₁	N ₃	Y ₃	N ₂
	N ₁	Y ₃	N ₃	N ₂
	N ₁	N ₂	N ₂	Y ₂





Clue 1 states that the name of the boy’s favorite fruit has the most syllables. “Banana” has 3 syllables, more than the other fruit, so **that is** the boy’s favorite. Clue 2 states that Mr. Fox’s favorite fruit has the fewest syllables, so his would be the grapes. Clue 3 says that Ms. Sharp’s fruit grows larger than the girl’s, and an apple grows larger than a cherry. So, Ms. Sharp’s favorite fruit is the apple and the girl’s is the cherry.

12.

	N ₁	N ₁	N ₂	Y ₂
	N ₃	Y ₃	N ₂	N ₂
	Y ₃	N ₃	N ₂	N ₂
	N ₂	N ₂	Y ₂	N ₂





Based on Clue 1, the boy’s pet has either wings or hooves, so it isn’t either fish. Clue 2 states that the mom’s pet cannot swim or fly, so her pet is the horse. This means the boy’s pet is the owl. Clue 3 says the dad’s pet is faster and bigger than the girl’s pet. The shark is both faster and bigger, so it belongs to the dad. The girl’s pet is the fish.

33.

	cat	dog	bug	rat
	Y ₃	N ₁	N ₁	N ₃
	N ₁	Y ₂	N ₂	N ₁
	N ₃	N ₁	N ₁	Y ₃
	N ₁	N ₂	Y ₂	N ₁





Clue 1 states that the names of the woman’s pet and the boy’s pet rhyme. Their pets are the cat and the rat. Since clue 2 says the name of the man’s pet rhymes with “jug,” his pet is the bug. That means the dog is the girl’s pet. Based on Clue 3, the woman’s pet is not the cat, so it is the rat. The cat is the boy’s pet.

34.

				
Jill	N ₁	N ₁	Y ₁	N ₁
Deb	N ₁	N ₁	N ₁	Y ₁
Ben	N ₂	Y ₂	N ₁	N ₁
August	Y ₂	N ₂	N ₁	N ₁





Based on Clue 1, one person with curly hair has the letters “e” and “b” in *her* name. This means the curly-haired girl is Deb. Since there’s only one other girl and one other girl’s name, the other girl is Jill. Clue 2 states that the boy with curly hair was named for the month he was born. August is the only month listed as a name, so the curly-haired boy is August. That leaves Ben as the name of the straight-haired boy.

35.

	yellow	red	black	silver
	N ₂	N ₃	N ₁	Y ₃
	N ₁	N ₁	Y ₁	N ₁
	Y ₂	N ₂	N ₁	N ₂
	N ₂	Y ₃	N ₁	N ₃

Clue 1 states that Jack likes the color that rhymes with his name, **so his favorite color is black.** Clue 2 states that the dad likes the one that rhymes with “fellow,” so his is yellow. Clue 3 states the daughter’s second favorite color rhymes with “bed,” which is red. So silver is the girl’s favorite and the mother’s is red.

36.

	cold	cool	warm	hot
	N ₁	N ₁	N ₂	Y ₂
	Y ₃	N ₃	N ₁	N ₁
	N ₃	Y ₃	N ₁	N ₁
	N ₁	N ₁	Y ₂	N ₂

Clue 1 states that the woman and boy always heat their milk, so they do not drink it cold or cool. Clue 2 says that the woman does not like her food or her drinks hot, so she must like hers warm. Then the boy likes his milk hot. Clue 3 states the boy likes his milk warmer than the man likes his and much warmer than the girl likes hers. So, the man’s milk is cool, and the girl’s milk is cold.