ON-SETS WORKSHEET

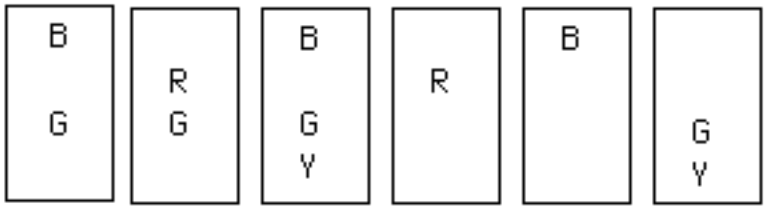
2C

NAME _____

PRINCIPLE

X ∩ Y (read "X intersect Y" or "the intersection of X and Y") is the set of cards in the Universe that are in both X and Y.

EXAMPLES



For the Universe above,

Set-Name	Number of Cards	Which Cards
B ∩ G	2	1, 3
B ∩ R	0	none
B' ∩ Y	1	6
R' ∩ Y'	2	1, 5
B ∩ △	0	none
R ∩ ▽	2	2, 4
B ∩ G ∩ Y	1	3
(B ∪ R) ∩ G	3	1, 2, 3
R' ∩ (G ∪ Y)	3	1, 3, 6

EXERCISES

For the Universe above, how many cards are in each set?

1. B ∩ G _____
2. R ∩ Y _____
3. B ∩ Y _____
4. G' ∩ R _____
5. B' ∩ R _____
6. G ∩ △ _____
7. ▽ ∩ Y _____
8. B' ∩ Y' _____
9. G' ∩ R' _____
10. B ∩ B _____
11. B ∩ R ∩ G _____
12. R ∩ (G ∪ Y) _____
13. (B' ∪ G) ∩ R _____
14. (R' ∩ G') ∪ Y _____
15. B' ∩ Y' ∩ G _____
16. R ∩ R' _____
17. B' ∩ B _____
18. B ∩ G ∩ △ _____

MORE CHALLENGING EXERCISES

Circle the number of each statement that is true for any sets X and Y.

19. X ∪ X = X
20. X ∩ Y = Y ∩ X
21. X ∩ ▽ = X
22. X ∩ △ = X
23. X' ∩ Y = X ∩ Y'
24. X ∩ X' = V