

Push Tasks

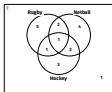


Use subset notation and reason about set relationships.

1. $A = \{2, 4, 6\}$, $B = \{1, 2, 3, 4, 5, 6\}$.
Is $A \subset B$? Justify using the elements of A .

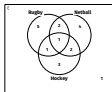
2. If $n(A) = 5$ and $n(A \cap B) = 5$, what can you conclude about A and B using subset notation? Explain.

3.



State $n(\text{Rugby} \cap \text{Netball} \cap \text{Hockey})$ for this three-set diagram.

4.



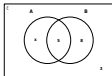
State the notation and value for exactly two sports.

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Combine complement, union, and intersection notation; critique an error.

5.



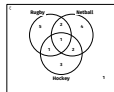
The total is 30. Find x , then state $n(A)$ using notation.

7. ξ has 40 elements. $n(A) = 22$, $n(B) = 15$, $n(A \cap B) = 8$. Find $n((A \cup B)')$.

6. A student writes

$n(A \cup B) = n(A) + n(B)$. Explain using notation why this is wrong when $A \cap B \neq \emptyset$, and give the correct formula.

8.



Is $n(\text{exactly two})$ more than $n(\text{Hockey only}) + n(\text{all three})$?