

Calculator view:

The screenshot shows a software interface for set calculations. It includes an input field at the top with a dropdown menu for the universal set (labeled 19), a row of operator buttons (labeled 6-14), an output field (labeled 16), and a 'Calculate!' button (labeled 17). On the right, there is a 'Storage' panel (labeled 18) with a list of saved sets, buttons to move sets between input/output and storage (labeled 20-22), and buttons to generate Venn diagrams (labeled 23) or delete sets (labeled 24). Numbered annotations 1-5 point to specific buttons on the left side of the interface.

1. Generates an example into input area.
2. Generates Venn diagram from the input expression
3. Clears input expression
4. Deletes input text and transfers output text to input text.
5. Returns user back to the menu
6. Union operator
7. Intersection operator
8. Difference operator
9. Cartesian product operator
10. Complement operator
11. Belongs to symbol
12. Proper subset operator
13. Weak subset operator
14. Power set operator. User has to input set inside the parenthesis
15. The cardinality of the output set
16. Calculation of the expression output
17. Button, which sends command to process the input and calculate the output
18. Storage area. User can save and retrieve the sets from input and output. Generate the diagrams from storage sets.
19. Universal set limitations. Each output and generated Venn diagrams will always be intersected with universal set. In other words, the displayed sets will not have those values, which are not within universal set. About all such intersections the user will be informed. Q stands for rational numbers. Q is not fully supported in set builder notation as the software is not able to produce uncountable sets. The user will be notified in that scenario.
20. Transfers input sets into storage
21. Retrieves storage sets and puts them in input area
22. Transfers output set to storage
23. Generates Venn diagram from selected sets from storage
24. Deletes selected sets from storage

Set Exercises View:

Select Exercise: 7. $U \in [-99, 99]$ and $U \in \mathbb{Z}$ and $U \in \text{All Strings}$

1. 1. $\{1,2,3,4\} \cup \{1,3,4,5\}$
2. $\{1,2,3,4\} \cap \{1,3,4,5\}$

2. Simple 3. Average 4. Hard 5. My Stats

Feedback

Correct! 6.

Type answer: 8.

{1,2,3,4,5}

9. Check! 10. Give Up 11. Venn Diagram 12. Back

1. Select an exercise from the list
2. Loads a list of easy exercises
3. Loads a list of average difficulty exercises
4. Loads a list of hard exercises
5. Shows a report on how the user was practicing
6. Loads a feedback after clicking "Check!" or "Give up"
7. The sets from exercise list are limited by predefined universal set.
8. User shall type its answer for the selected exercise here.
9. Check button. The user shall check if the typed answer is correct
10. Give up button will display the answer of selected exercise in the feedback area
11. Shows the Venn diagram for the selected exercise
12. Back to menu