**Set Theory Test**

Citation:

Brase, G.L. (2021). Which individual difference traits predict good Bayesian reasoning? Concurrent comparisons of underlying abilities. *Memory & Cognition, 49*(2), 235-248.. https://doi.org/10.3758/s13421-020-01087-5

Scoring Directions: All 12 items should be presented in random order, and an overall score is the number of correct answers.

**Instructions:** This section of the study asks you to answer some questions about how sets of items interact. Sets can be combined in a number of different ways to produce another set. These questions use the following definitions and symbols:

* The **union** of sets ***A*** and ***B***, denoted by ***A*** ∪***B*,** is the combination of all the items in both sets. For example: If ***A* = {*1, 2*}** and ***B* = {2*, 3*} ,** then ***A*** ∪ ***B* = {*1, 2, 3*} .**
* The **intersection** of sets ***A*** and ***B***, denoted by ***A*** ∩ ***B*,** is all the items that both sets have in common. For example: If ***A* = {*1, 2*}** and ***B* = {2*, 3*} ,** then ***A*** ∩ ***B* = {2} .**
* The **difference** of sets ***A*** and ***B***, denoted by ***A*** **-** ***B*,** is all the items that are in **A** but not in **B**. For example: If ***A* = {*1, 2*}** and ***B* = {2*, 3*} ,** then ***A*** **-** ***B* = {1}.**

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| Reminder: ∪ = the **union** of sets, ∩ = the **intersection** of sets, and – = the **difference** of sets. |

1. If ***A* = {*1, 2, 3*}** and ***B* = {*1, 2, 4, 5*},** What is ***A*** http://www.cs.odu.edu/~toida/nerzic/level-a/symbols_sets/union.gif ***B* = ?**

2. If ***A* = {*1, 2, 3*}** and ***B* = {*1, 2, 4, 5*},** What is ***A*** http://www.cs.odu.edu/~toida/nerzic/level-a/symbols_sets/intsect.gif ***B* = ?**

3.If ***A* = {*1, 2, 3*}** and ***B* = {*1, 2, 4, 5*},** What is ***A***  **̶̶ *B* = ?**

4. If ***A* = {*1, 2, 3*}** and ***B* = {*1, 2, 4, 5*} ,** What is ***B***  **̶̶ *A* = ?**

5. If ***A*** = **{*2, 3, 4, 5*} *B*** = **{*4, 5, 6, 7*} *C*** = **{*6, 7, 8, 9*} *D*** = **{*8, 9, 10, 11*}**  What is ***A*** http://www.cs.odu.edu/~toida/nerzic/level-a/symbols_sets/union.gif ***C ?***

6. If ***A*** = **{*2, 3, 4, 5*} *B*** = **{*4, 5, 6, 7*} *C*** = **{*6, 7, 8, 9*} *D*** = **{*8, 9, 10, 11*}**  What is ***B*** http://www.cs.odu.edu/~toida/nerzic/level-a/symbols_sets/union.gif ***C ?***

7. If ***A*** = **{*2, 3, 4, 5*} *B*** = **{*4, 5, 6, 7*} *C*** = **{*6, 7, 8, 9*} *D*** = **{*8, 9, 10, 11*}**  What is ***B*** http://www.cs.odu.edu/~toida/nerzic/level-a/symbols_sets/union.gif ***D ?***

8. If ***A*** = **{*2, 3, 4, 5*} *B*** = **{*4, 5, 6, 7*} *C*** = **{*6, 7, 8, 9*} *D*** = **{*8, 9, 10, 11*}**  What is ***A*** http://www.cs.odu.edu/~toida/nerzic/level-a/symbols_sets/intsect.gif ***B ?***

9. If ***A*** = **{*2, 3, 4, 5*} *B*** = **{*4, 5, 6, 7*} *C*** = **{*6, 7, 8, 9*} *D*** = **{*8, 9, 10, 11*}**  What is ***A*** http://www.cs.odu.edu/~toida/nerzic/level-a/symbols_sets/intsect.gif ***C ?***

10. If ***A*** = **{*2, 3, 4, 5*} *B*** = **{*4, 5, 6, 7*} *C*** = **{*6, 7, 8, 9*} *D*** = **{*8, 9, 10, 11*}**  What is ***C*** http://www.cs.odu.edu/~toida/nerzic/level-a/symbols_sets/intsect.gif ***D ?***

11. If ***A*** = **{*2, 3, 4, 5*} *B*** = **{*4, 5, 6, 7*} *C*** = **{*6, 7, 8, 9*} *D*** = **{*8, 9, 10, 11*}**  What is ***C***  **̶̶ *B ?***

12. If ***A*** = **{*2, 3, 4, 5*} *B*** = **{*4, 5, 6, 7*} *C*** = **{*6, 7, 8, 9*} *D*** = **{*8, 9, 10, 11*}**  What is ***C***  **̶̶ *D ?***