

UPDATES

There are some changes in the version 2.0. Especially administration and experience of test takers are improved. Here are the new features:

- **Better graphics:** We remade the graphics and picture files. All tasks and solutions are now sharp, png-files with a sufficient resolution that is suitable for different devices like smartphone, laptop, or PC.
- **Standard matrices, no jigsaw puzzle:** In the past years we heard from some participants, that they did not try to solve the problem by identifying the rules of composition in the rows and columns, but by looking at the shape of the jigsaw pieces (which was identical in every task and solution). To eliminate that problem, we now do not use the jigsaws anymore.
- **6 instead of 8 answers:** Ten years ago test takers participated by PC or something like that with a large screen. Nowadays they usually participate by smartphones with much smaller screens. Because the tests should not be eyesight tests, we decided to present six instead of eight answers: the easiest two incorrect answers - those that were fewest chosen - of each task were eliminated.
- **New scoring key:** Because of the elimination of answers, the scoring key changed (see below).
- **Correct answers of examples are highlighted:** By showing the correct answers of the examples, we try to explain the way to solve the tasks. Instead of just giving the position of the correct solution ("It's the first...", "It's the sixth answer which is correct") we added a red frame to show the correct answer.
- **The first example slightly changed:** The rotation of the cross was not very obvious. It also could be a symmetric arrangement, which may be created by mirroring, which is NOT a mental operation that should be introduced, because the operations are adding and moving. Therefore, we now use a line instead of a cross.
- **No IQ:** Because of the changes, we have so far, no IQ calculated. We are working on it!

Example 1

Solution
 The rule which defines the figure is:
 The line and the black rectangle systematically vary: the line move clockwise in each row and the black rectangle move clockwise in each column and row, i.e. it has to be situated in the center of the lower part in the missing piece.

Click "Continue" to go to the second sample task.

Figure 1: Screenshot of the solution of the second example – the new version.

First example

Solution
 The first piece is the only correct one.

The rule which defines the puzzle is: The dashed lines in the diagonal always form an X, i.e. the missing piece needs to have a dashed X. The second rule is that the position of the black rectangle systematically varies: It moves clockwise in each column and row, i.e. it has to be situated in the center of the lower part in the missing piece.

Click "Weiter/Continue" to go to the second sample task.

Figure 2: Screenshot of the solution of the second example – the old version.

Some Publications with the HMT(-S) so far...

- Guggemos, J. (in press). On the predictors of computational thinking and its growth at the high-school level. *Computers & Education*. <https://doi.org/10.1016/j.compedu.2020.104060>
- Körner, R., Kammerhoff, J., & Schütz, A. (2020). Who commands the little soldiers? A comparison of the personality traits of miniature wargame players with other gamers and non-gamers. *Journal of Individual Differences*. <https://doi.org/10.1027/1614-0001/a000326>
- Schäpers, P., Mussel, P., Lievens, F., König, C. J., Freudenstein, J.-P., & Krumm, S. (2020). The role of situations in situational judgment tests: Effects on construct saturation, predictive validity, and applicant perceptions. *Journal of Applied Psychology*, 105(8), 800–818. <https://doi.org/10.1037/apl0000457>
- Schmidt, F. T. C., Lechner, C. M., & Danner, D. (2020). New wine in an old bottle? A facet-level perspective on the added value of Grit over BFI–2 Conscientiousness. *PLoS ONE*, 15(2), e0228969. <https://doi.org/10.1371/journal.pone.0228969>
- Spurk, D., Volmer, J., Orth, M. B., & Göritz, A.S. (2020). How do career adaptability and proactive career behaviors interrelate over time? An inter- and intraindividual investigation. *Journal of Occupational and Organizational Psychology*, 93, 158-186. <https://doi.org/10.1111/joop.12288>
- von Adrian-Werbung, M. T. P., Adler, D., Schwab, F., Schwar, S., & Lange, B., L. (2020). Can I confidently guess who you are? Personality and intelligence perception in online dating. *Studies in Communication and Media*, 9(4), 573-598. <https://doi.org/10.5771/2192-4007-2020-4-573>
- Wolff, C., & Keith, N. (2019). Motives relate to cooperation in social dilemmas but have an inconsistent association with leadership evaluation. *Scientific Reports*, 9, 10118. <https://doi.org/10.1038/s41598-019-45931-4>
- Nalis, D., Schütz, A., & Pastukhov, A. (2018). The Bamberg Trucking Game: A paradigm for assessing the detection of win-win solutions in a potential conflict scenario. *Frontiers in Psychology*, 9, 138. <https://doi.org/10.3389/fpsyg.2018.00138>
- Rammstedt, B., Lechner, C. M., & Danner, D. (2018). Relationships between personality and cognitive ability: A facet-level analysis. *Journal of Intelligence*, 6(28), 1-13. <https://doi.org/10.3390/jintelligence6020028>
- Schubert, A.-L., Hagemann, D., Frischkorn, G. T., & Herpertz, S. C. (2018). Faster, but not smarter: An experimental analysis of the relationship between mental speed and mental abilities. *Intelligence*, 71, 66-75. <https://doi.org/10.1016/j.intell.2018.10.005>