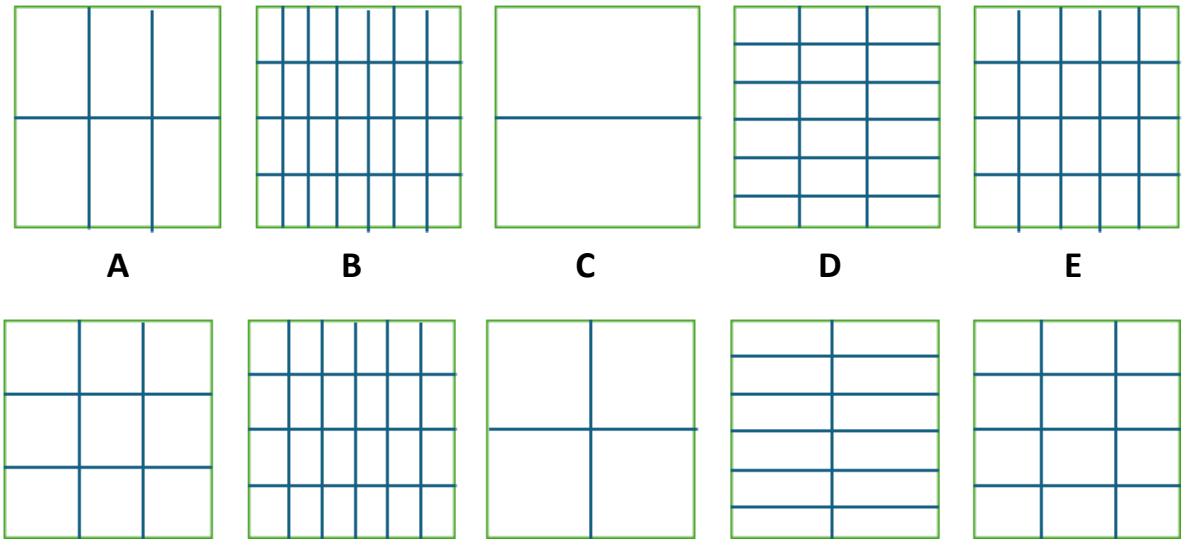
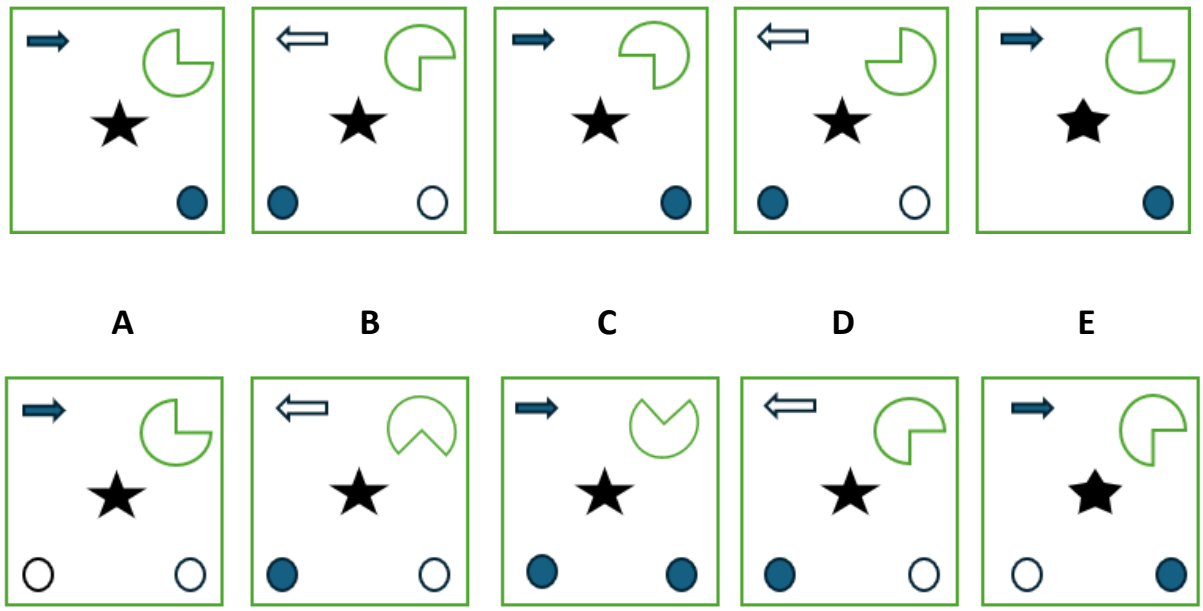
ABSTRACT (INDUCTIVE) REASONING EXERCISES

1. Warm-up drill: Which frame from the second row seems to fit in with those in the first row?

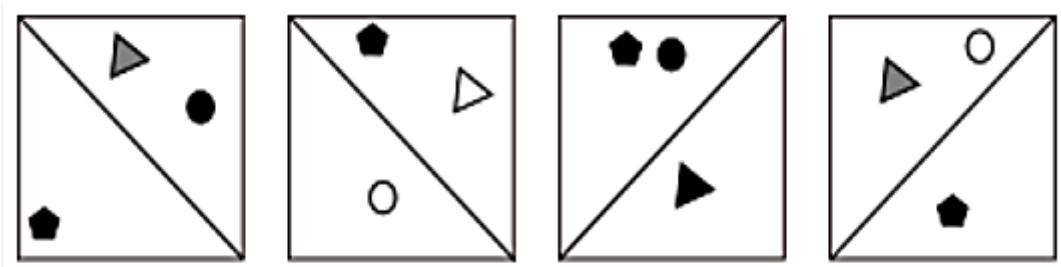


In each of the following questions, from the available options (A,B,C,D,(E)), please choose which diagram would come next in the series above.

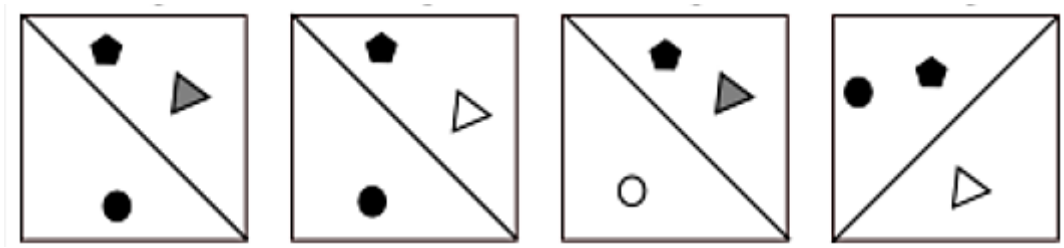
2.



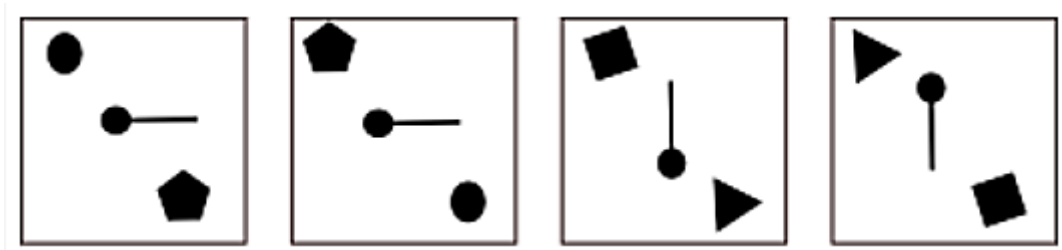
3.



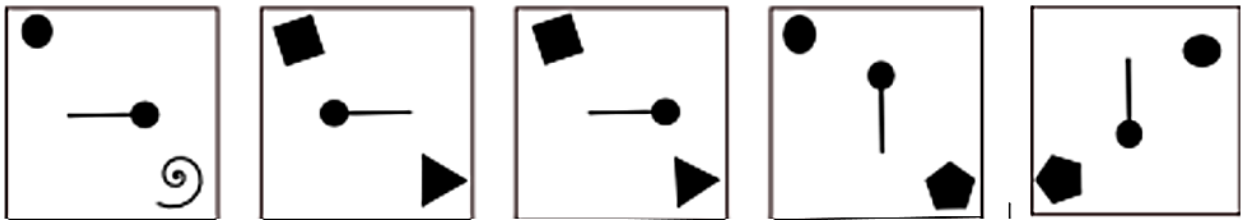
A B C D



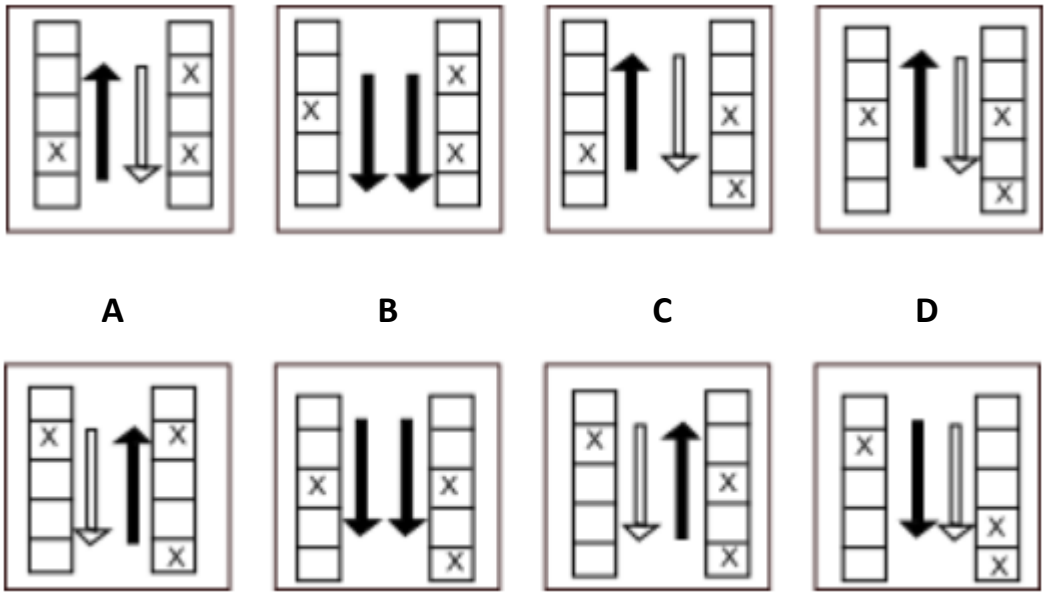
4.



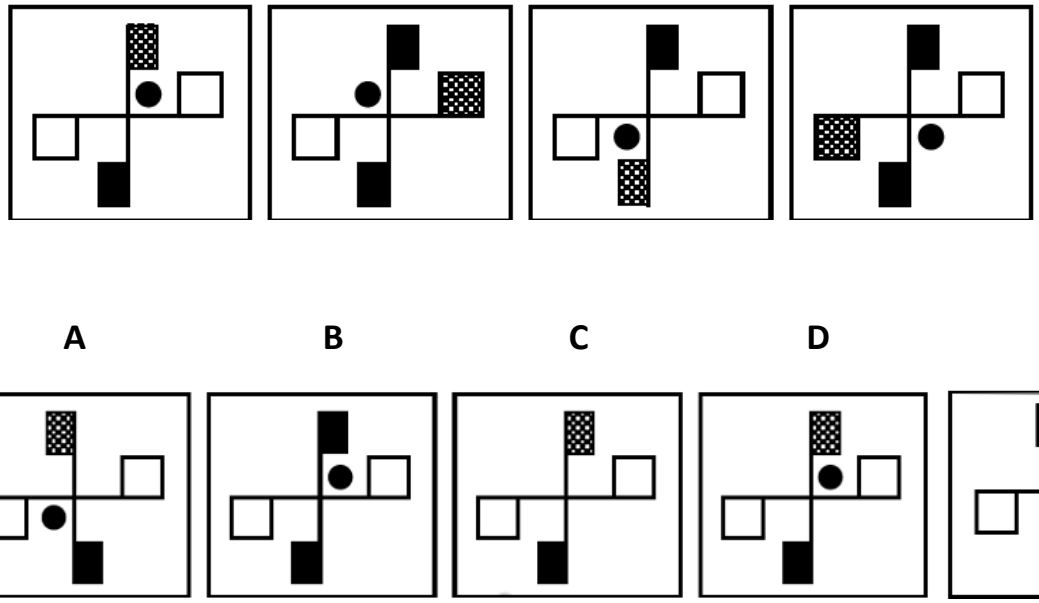
A B C D E



5.



6.



SOLUTIONS

1. E. A careful examination reveals that all five frames in the upper set contain an odd number of columns and an even number of rows. Among the five answer choices, only option E meets this criterion.

2. D. The middle star remains unchanged across all frames, so it cannot serve as a distinguishing criterion. The Pac-Man symbol rotates 90° in each successive frame, meaning that in the next vignette, its lower right quadrant should be missing. The white circle consistently appears in the lower left corner of the frame. The arrows in the top left indicate the position of the black circle. When the black circle aligns with the white one, it overlaps and obscures it from view.

3. B. There are three shapes which are in rotation between being above and below the dividing line (in the upper or lower triangle). The line rotates 90° every two steps (eliminate D). The triangle cycles from grey-white-black (eliminate A). The circle switches from white to black (eliminate C).

4. A. The corner shapes alternate between swapping positions and then changing to another shape. The middle lollypop shape rotates dynamically clockwise -by ½ less of its previous angle in each step. Note that from the 1st to 2nd step, the lollypop rotated by 360° while from the 2nd to the third step it rotated by 180^{o} and from 3rd to 4th by 90^{o}. So, in the next frame it should move by 45^{o}.

5. C. Multiple rules apply:

- The white arrow is idle, but the black arrow indicates a move of the “x” in the adjacent column.
- When the arrow points upwards the “x” moves by one cell upwards, when the arrow points downwards, the “x” moves downwards.
- Since in the 4th frame the left arrow points upwards we should expect in the following frame the “x” on the left column to move up by one position, eliminating B as a possible answer.
- Meanwhile, the right column's arrow is white, signifying no movement for the "x" marks in that column. Therefore, the "x" marks in the right column will remain in their respective middle and bottom positions.
- Since in the 4th frame the right arrow is white, we should not expect any change in the positions of the two “x” on the right column. These “x” are expected to remain at their respective middle and bottom position, making C the right answer.

6. D. Throughout the sequence, the figures remain in the same position (eliminate A and E). However, one attached shape transitions to a chequered pattern before returning to its original shade, moving clockwise around the figure. Meanwhile, a black dot moves counterclockwise (eliminate C). These two patterns—the shading of attached shapes and the position of the black dot—are key to identifying the next shape, which is D.

***REMEMBER**: As abstract reasoning tests progress, they can become increasingly complex, making it crucial to recognize patterns quickly and apply effective problem-solving strategies.*