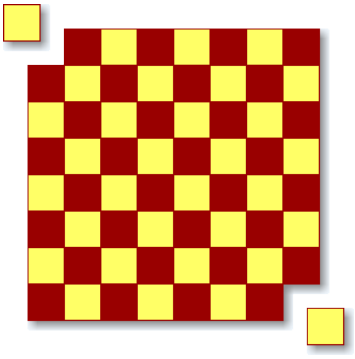

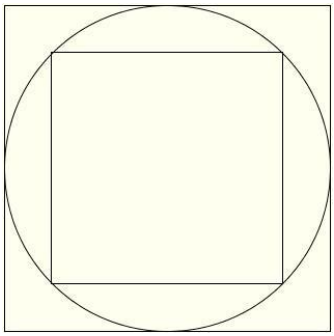

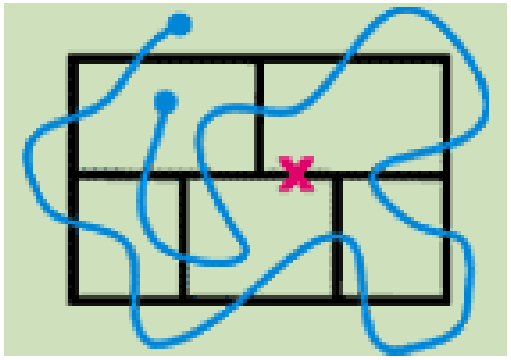

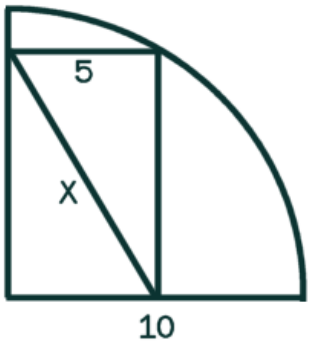

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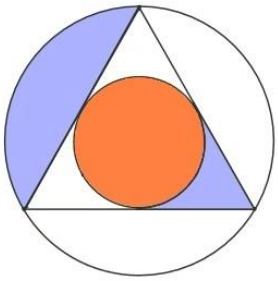
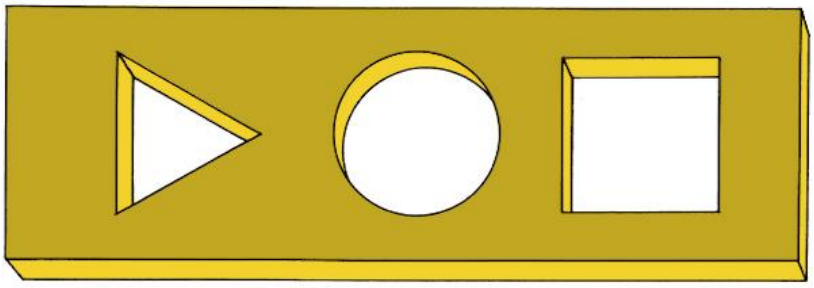
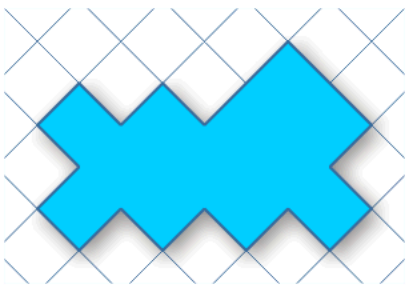
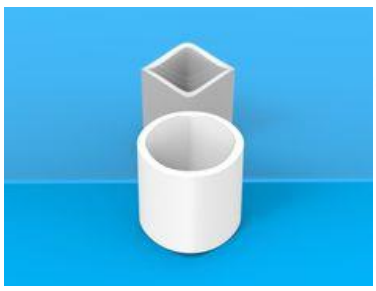
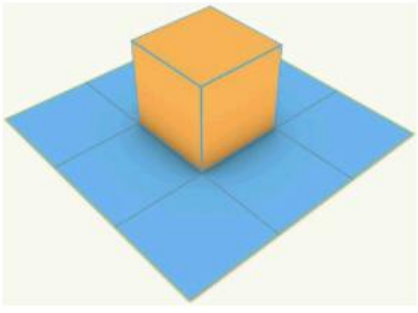








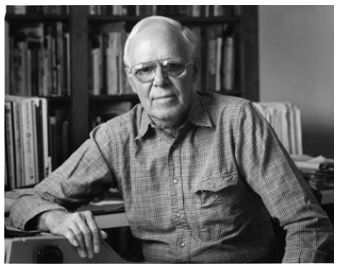


12 Visual Puzzles

(many with Martin Gardner associations)

curated by Colm Mulcahy

for Celebration of Mind (21 Oct 2017)



(what would have been the 103rd birthday of Martin Gardner)

1. Move one toothpick to create a different giraffe

2. Can 31 dominos cover this mutilated chessboard? Generalize your conclusion into a theorem that says "a chessboard with 2 squares removed can be covered by 31 dominoes if and only if ....."

3.If the big square has area 1, what is the area of the small square?

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4. Upon reflection, it has 31 days. What is it?

5. This "brick arrangement" shows a failed attempt to draw a curve that goes through all brick borders. Does such an arrangement exist?

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6. Find x.

7. Find all the digits marked x (they are not all the same!).

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8. Show why the peach and blue zones have the same area.

9. Can you imagine a 3D shape that would fit snuggly through each of these 3 holes?

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10. With one cut (it need not be straight) this can be split into 2 identical pieces.

11. This appears to show a circular cylinder whose mirror image reflection is a square cylinder. How is this possible?

12. Is it possible to cut and fold a 3x3 square grid of paper to enclose a 1x1x1 cube? The cutting and folding must be along existing grid lines, and the resulting piece of paper must be in one piece connected.