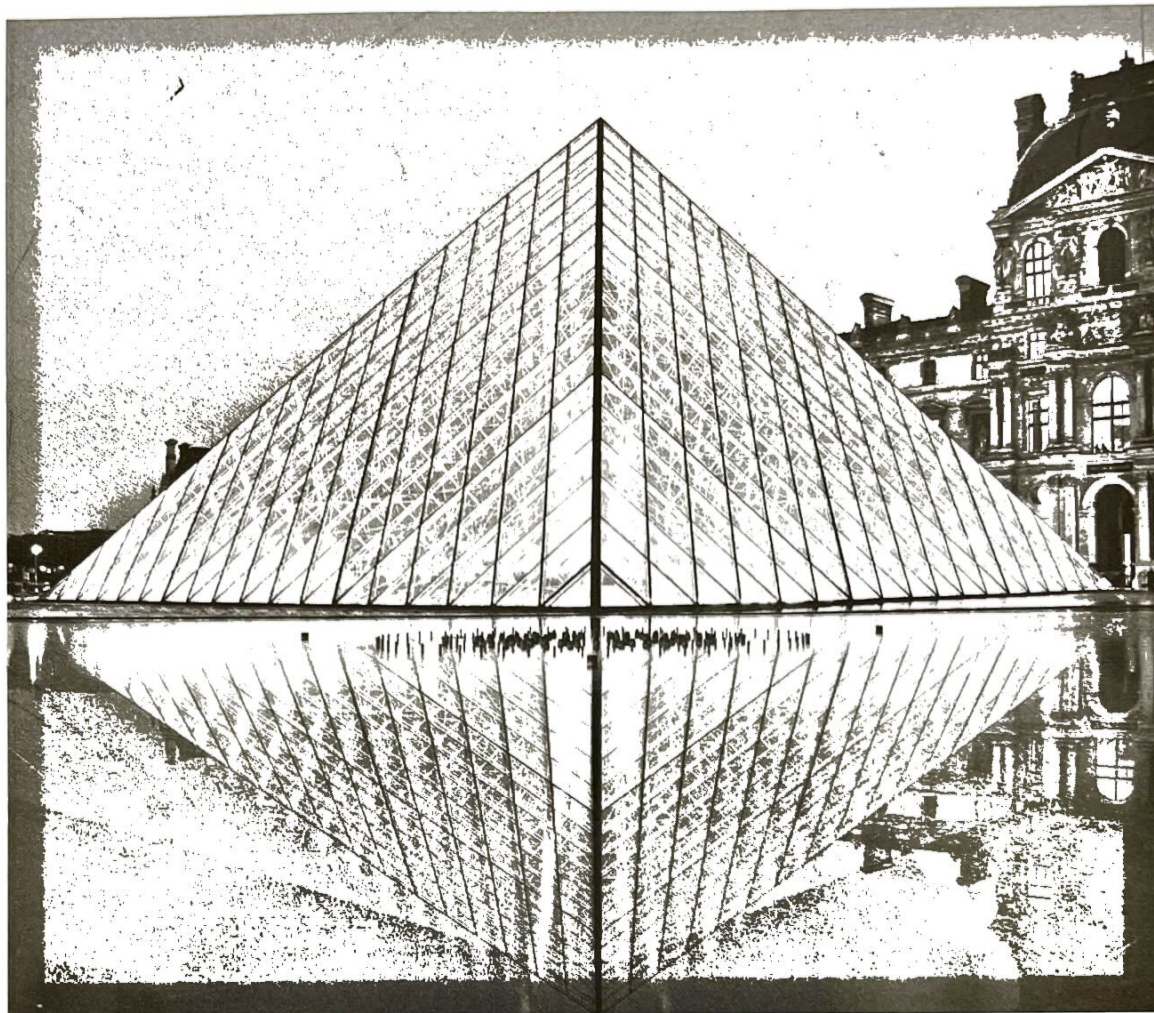




L earning Math from picturing patterns

Section A

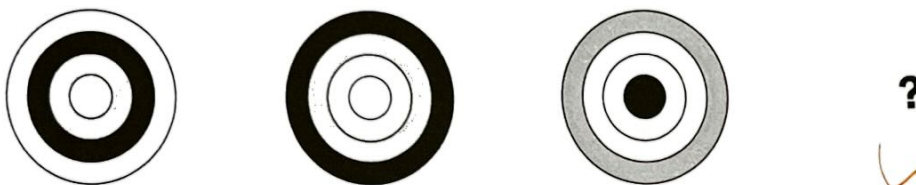
Choose the correct answer and write its corresponding number in the space provided.

- 1 Which comes next in the pattern below?



- (1)
- (2)
- (3)
- (4)

- 2 Which comes next in the pattern below?



- (1)
- (2)
- (3)
- (4)

- 3 Which of the following figures is the best fit for the unknown?



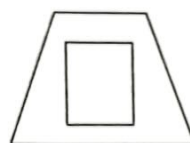
- (1)
- (2)
- (3)
- (4)

4 Which of the following figures is the odd one out?

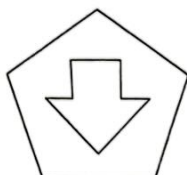
(1)



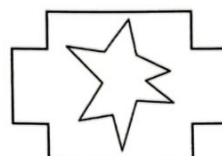
(2)



(3)



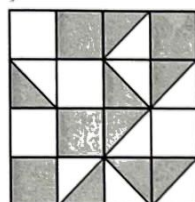
(4)



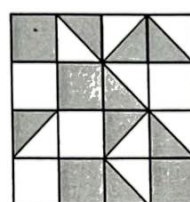
3

5 Which of the following figures is the odd one out?

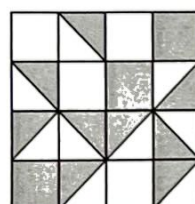
(1)



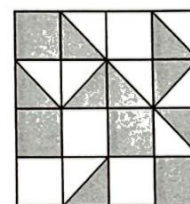
(2)



(3)



(4)



3

6 Which of the following figures is the odd one out?

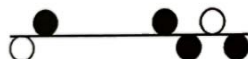
(1)



(2)



(3)



(4)



4

7 Which of the following numbers is the odd one out?

(1) 1 138

(2) 1 226

(3) 1 324

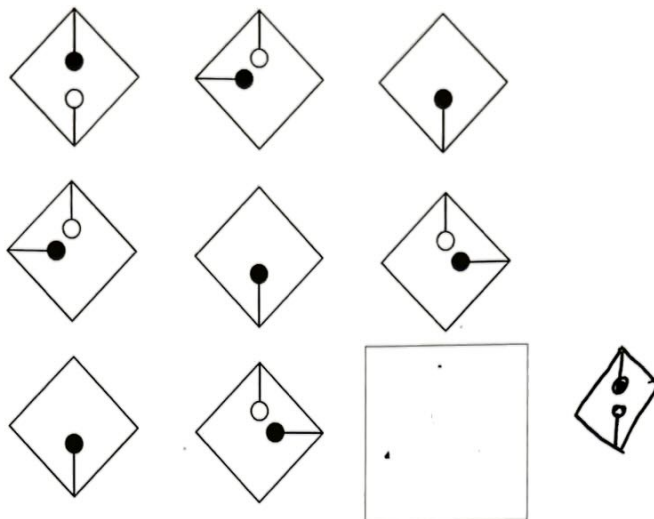
(4) 1 854

4

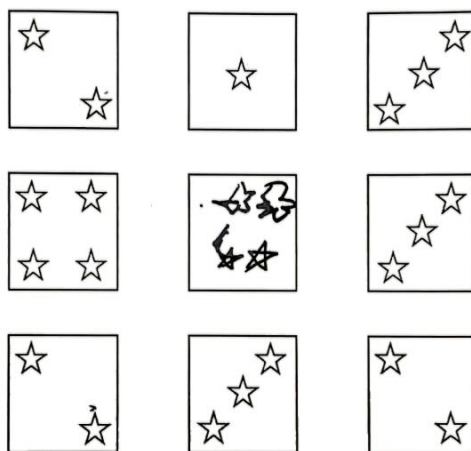
Section B

Answer the following questions in the space provided.

- 1 Study the pattern below and fill in the blank with the missing figure.



- 2 Study the pattern below and fill in the blank with the missing figure.

**Exploring Figure Patterns**

☞ Figure patterns include symmetrical patterns, movement patterns and number of characteristics of the figures given.

☞ If the figures given are symmetrical, consider whether they are formed by polygons, letters or numbers.

☞ If the figures given show patterns involving movements, consider rotations, horizontal or vertical.

☞ Consider angles, number of sides and lines, parts of each figure in the process of identifying the pattern.

☞ An advanced figure pattern could appear with any combination of the characteristics above.

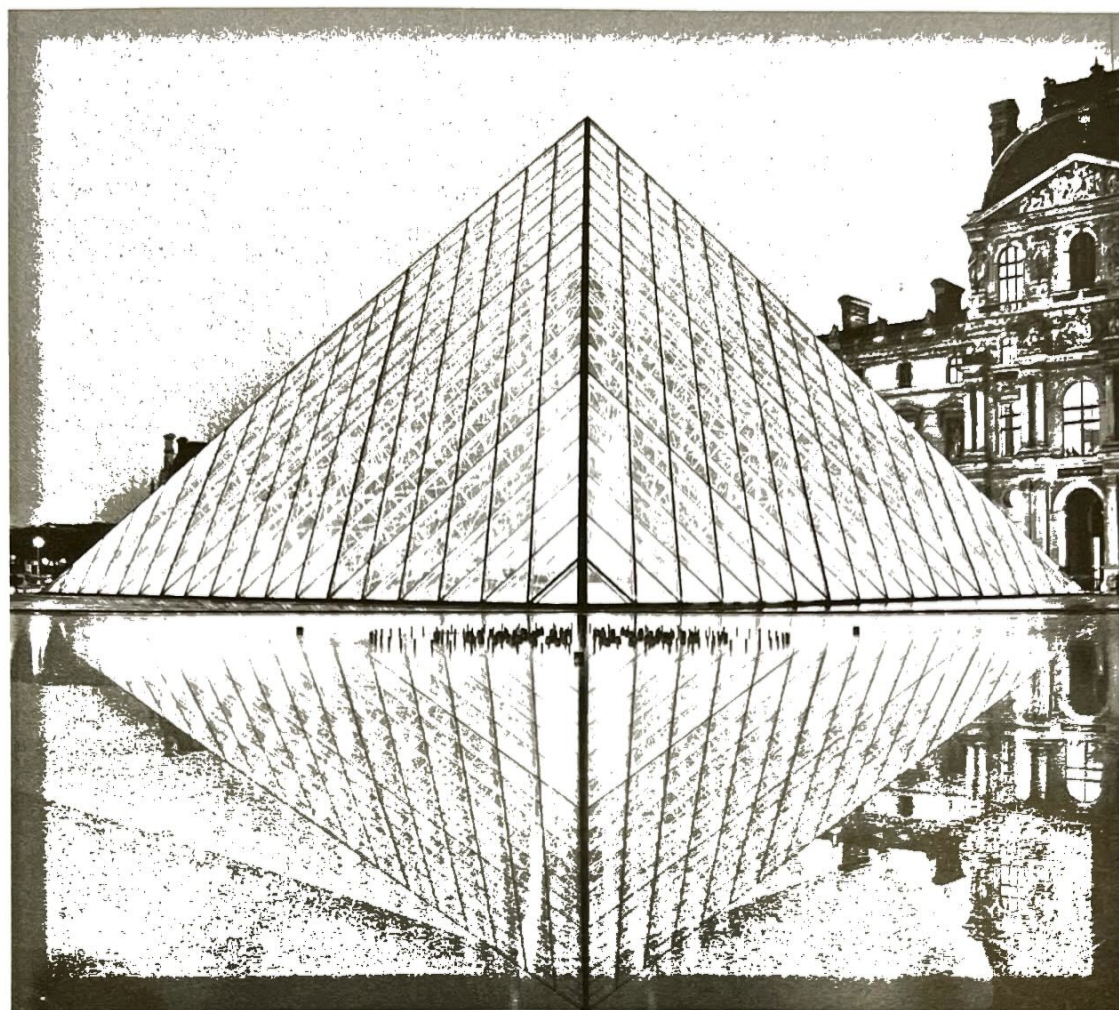


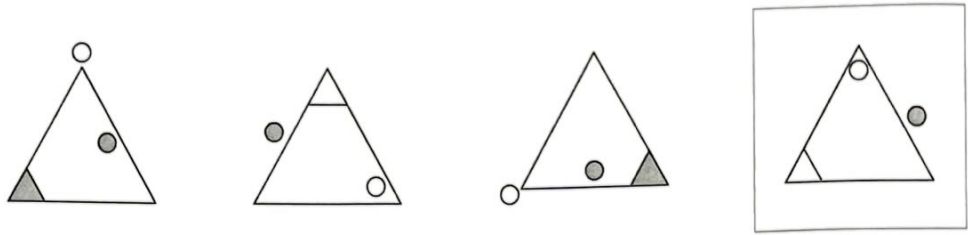
photo pixabay/Edinugraha

L

earning Math from picturing patterns

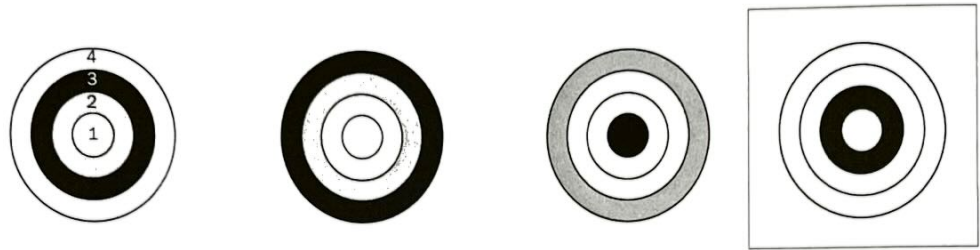
Section A

1 Answer: 1



The small triangle moves in a clockwise direction along the corners of the big triangle.
The shading in the small triangle alternates between shaded and unshaded.
The white circle moves in a clockwise direction along the corners of the big triangle, alternating between inside and outside of the corners.
The dark circle moves in an anti-clockwise direction along the sides of the big triangle, alternating between inside and outside of the sides.

2 Answer: 4



The shadings move layer by layer.

The ○ moves from layer 1 → layer 2 → layer 3 → layer 4.

The ● moves from layer 2 → layer 3 → layer 4 → layer 1.

The ● moves from layer 3 → layer 4 → layer 1 → layer 2.

The ○ moves from layer 4 → layer 1 → layer 2 → layer 3.

3 Answer: 1

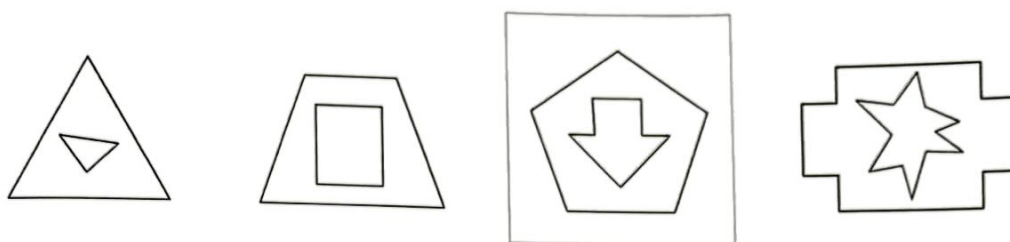


Within the same box, the 1st, 3rd and 8th figures are the same.

The 2nd, 4th and 6th figures are the same.

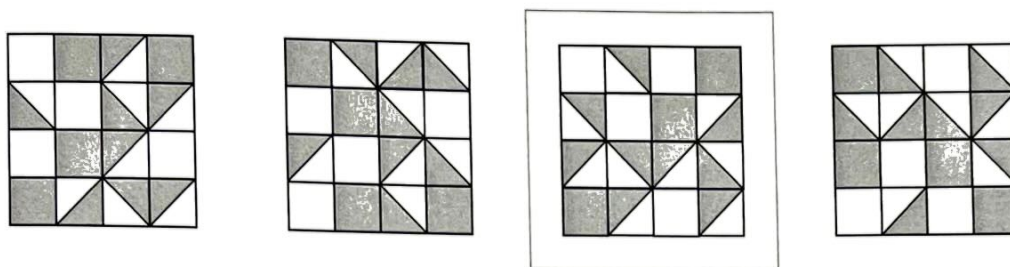
The 5th and 7th figures are the same.

4 Answer: 3



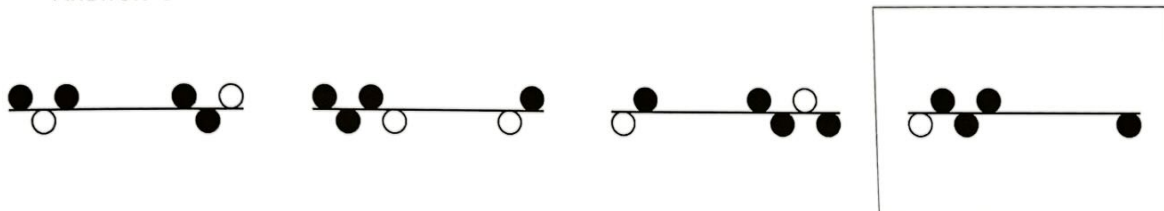
The 3rd figure is the odd one out as the number of sides of the inner shape is not the same as the number of sides of the outer shape.

5 Answer: 3



The 3rd figure is the odd one out as it is not half-shaded.

6 Answer: 4



The 4th figure is the odd one out as the total number of balls is not equal to 6.

7 Answer: 4

$$1\ 138 \rightarrow 1 \times 1 \times 3 \times 8 = 24$$

$$1\ 226 \rightarrow 1 \times 2 \times 2 \times 6 = 24$$

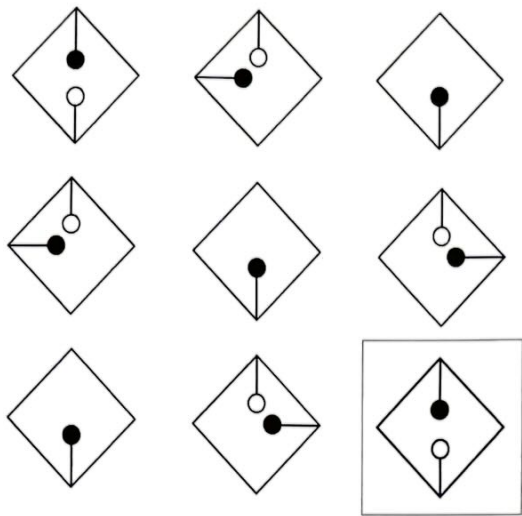
$$1\ 324 \rightarrow 1 \times 3 \times 2 \times 4 = 24$$

$$1\ 854 \rightarrow 1 \times 8 \times 5 \times 4 = 160$$

1 854 is the odd one out as the product of its digits is not 24.

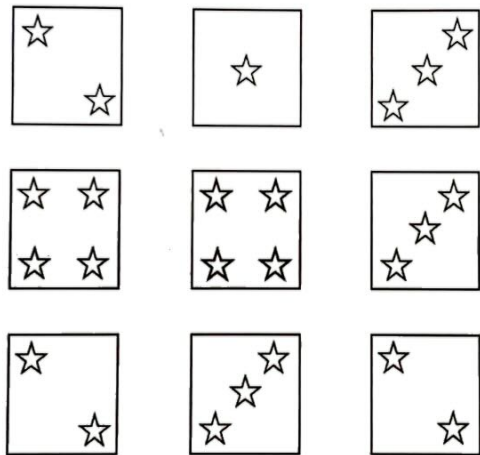
Section B

1



The white circle alternates between the top corner and the bottom corner.
The black circle moves in an anti-clockwise direction along the corners.
If both the white and black circles are supposed to be on the same corner, only the black circle is shown.

2



The number of stars in each column adds up to 8.