



iterative patterns And processes  
Work Sheet: 04-IPP-01-WS



**Introduction:**

1. The thing or action being repeated in a series/list is called a pattern.
2. The piece that repeats over and over in a design is called a 'MOTIF'
3. The pattern that are made up of repeating shapes and cover an area completely without leaving any gaps or overlapping is called a tessellation
4. Anything that is repeated again and again is called to be in a Loop

**Questions:**

Solve the following questions based on above mentioned points:

1. Match the following. Write down the matched pair in answer column and explain the reason why they matched in reason column.

Column A	Column B
1) 2,4,6,8	A) Frog, Goat, Horse
2) Cat, Dog, Elephant	B) Lioness, Peahen, Tigress
3) Lion, Peacock, Tiger	C) 10,12,14,16
4) 3,4,5	D) Triangle, Square, Pentagon

Answer	Reason

2. Complete the following series and identify and write down the pattern in the series

a. **Series:** Violet, Indigo , Blue, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_

**Pattern:** \_\_\_\_\_

b. **Series:** 1,2,4,8,16,\_\_\_\_,\_\_\_\_,\_\_\_\_

**Pattern:** \_\_\_\_\_

c. **Series:** Five, Ten, \_\_\_\_\_, Twenty, \_\_\_\_\_,Thirty,\_\_\_\_\_,\_\_\_\_\_

**Pattern:** \_\_\_\_\_

d. **Series :** A,D,G,J,M,\_\_\_\_,\_\_\_\_,\_\_\_\_

**Pattern:** \_\_\_\_\_

3. Identify the odd man out in the below series and also give reason for choosing the answer :

Name:

Class:

Div:

Roll. No:



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a. Kitten, Calf, Pup, Duck

Answer: \_\_\_\_\_

Reason: \_\_\_\_\_

b. Tomato, Strawberry, Raspberries, Peas, Orange

Answer: \_\_\_\_\_

Reason: \_\_\_\_\_

c. Triangle, Heptagon, Octagon, Pentagon

Answer: \_\_\_\_\_

Reason: \_\_\_\_\_

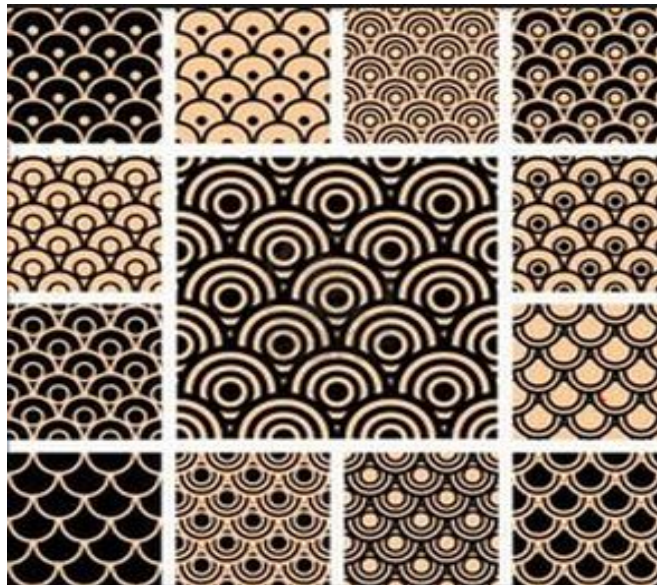
d. January, October, April, August

Answer: \_\_\_\_\_

Reason: \_\_\_\_\_

4. Encircle a Motif/s in below design:

a.



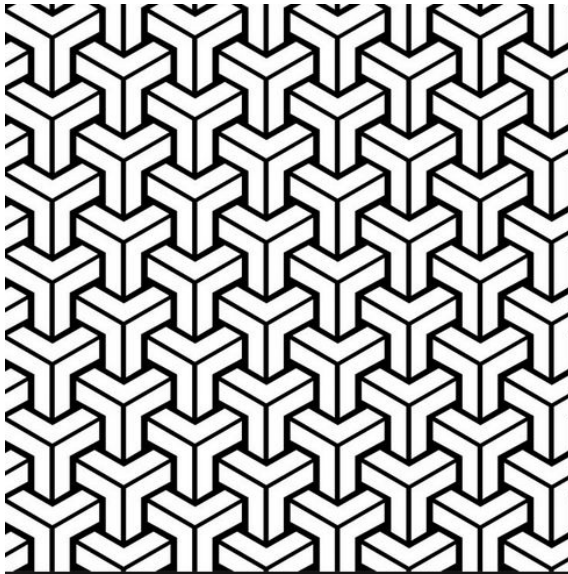
b.



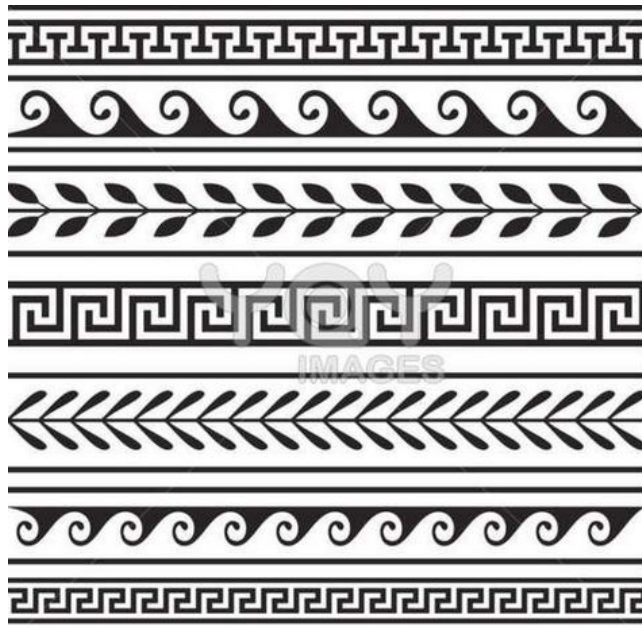
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c.



d.




5. Answer whether the following things tessellate or not.

t	e	o
Bee Hive		
Pineapple		
Football		



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Raspberry			
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6. Identify which of the following objects/situations are in loop and also explain why?
- Hands of a clock
  - Rotating merry go round
  - A Coin
  - A fan which is switched on
  - A round trip train between Chennai-Mumbai-Chennai
  - A cello tape
  - Wheel of a moving car
  - The Earth
7. Draw a tessellation with a single shape.
8. Draw a tessellation which is made up of multiple shapes.
9. What is difference between a loop and a pattern?
10. Identify a pattern on a chess board? Is it a tessellation? Explain
11. Write down the following series:
- A series of 5 numbers in which the difference between consecutive numbers is 2 and starts with number 10
  - A series of 7 multiples of 10 which starts with number 50
  - A series of odd months of the year
  - A series first five composite numbers