# Worksheet

# **Patterns and Symmetry**

Question 1: Make a pattern with the blocks given below:









### Answer:

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Question 2: Make a tessellation pattern using the following blocks:

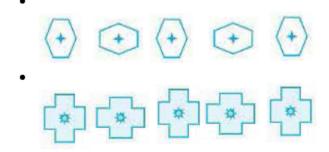
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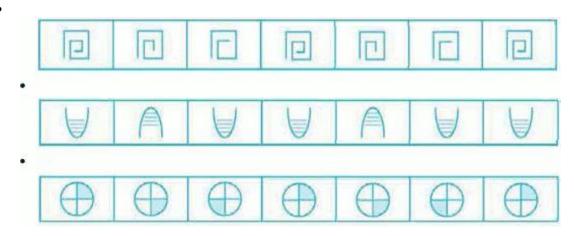


Answer:

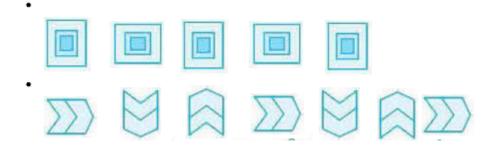


### **Question 3: Continue the patterns:**

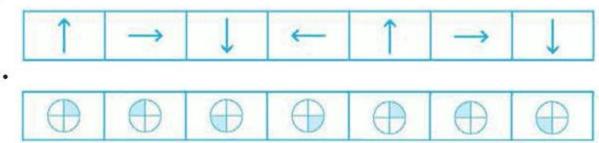
- •616AA, 52788, 438CC, **549DD**, **6510EE**, **7811FF**.
- •425A, 4158, 405C, <u>395D</u>, <u>385E</u>, <u>375F</u>.
- •12A, 138, 14C, <u>15D</u>, <u>16E</u>, <u>17F</u>.
- •51, 56, 61, 66, <u>71</u>, <u>76</u>, <u>81</u>.
- •13, 23, 33, 43, 53, <u>63</u>, <u>73</u>, <u>83</u>.
- KL9, LM8, MN7, NO6, OP5, PQ4.
- Y, W, U, S, **Q**, **O**, **M**.



### Question 4: Make a pattern using following blocks:



#### Question 5: Draw the next figures that follow the patterns:



Question 6: Identify the rule and write the next three terms of each pattern:

- X, Y, X, Y, <u>X</u>, <u>Y</u>, <u>X</u>, <u>Y</u>, <u>X</u>.
- •110, 220, 330, 440, <u>550</u>, <u>660</u>, <u>770</u>, <u>880</u>.

Question 7: Write the next three terms of each pattern:

- •9, 10, 12, 15, <u>19</u>, <u>24</u>, <u>30</u>.
- •491, 482, 473, 464, <u>455</u>, <u>446</u>, <u>437</u>.

**Question 8:** The next term of the pattern GGV, FFU, EET, ... is **HHS**.

**Question 9:** The next term of the pattern 1, 2, 3, 5, 8, ... is <u>12</u>.

Question 10: Write the next three terms of each pattern:

- •9A1, 882, 7C3, <u>6D4</u>, <u>5E5</u>, <u>4F6</u>.
- •8, E, H, K, N, Q, T.

Question 11: Study the pattern carefully and complete it.

$$1 \times 1 \times 1 = 1$$
  
 $2 \times 2 \times 2 = 8 = 3 + 5$   
 $3 \times 3 \times 3 = 27 = 7 + 9 + 11$   
 $4 \times 4 \times 4 = 64 = 13 + 15 + 17 + 19$   
 $5 \times 5 \times 5 = 125 = 21 + 23 + 25 + 27 + 29$ .  
 $6 \times 6 \times 6 = 216 = 31 + 33 + 35 + 37 + 39 + 41$ .  
 $7 \times 7 \times 7 = 343 = 43 + 45 + 47 + 49 + 51 + 53 + 55$ .  
 $8 \times 8 \times 8 = 512 = 57 + 59 + 61 + 63 + 65 + 67 + 69 + 71$ .

**Question 12:** The next term of the pattern LCD, MEF, NGH, ... is <u>OII</u>.

**Question 13:** The next term of the pattern 7104, 8114, 9124, 10134, ... is **11144**.

**Question 14:** The next term of the pattern AA9B, BB8C, CC7D, DD6E, ... is **EE5F**.

Question 15: The next term of the pattern A41, Z43, B45, Y47, ... is <u>C49</u>.