

# Worksheet

## Can You See The Pattern

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**Q.1. (a) Fill in the missing values and describe the Number Pattern!**

|                               |                                       |
|-------------------------------|---------------------------------------|
| <b>0, 3, 6, 9,__,__,...</b>   | <b>What is the pattern?<br/>Add 3</b> |
| <b>0, 5, 10, 15,__,__,...</b> | <b>What is the pattern?<br/>Add 5</b> |
| <b>0, 4, 8, 12,__,__,...</b>  | <b>What is the pattern?<br/>Add 4</b> |
| <b>0, 2, 4, 6,__,__,...</b>   | <b>What is the pattern?<br/>Add 2</b> |
| <b>0, 9, 18, 27,__,__,...</b> | <b>What is the pattern?<br/>Add 9</b> |
| <b>0, 7, 14, 21,__,__,...</b> | <b>What is the pattern?<br/>Add 7</b> |
| <b>0, 6, 12, 18,__,__,...</b> | <b>What is the pattern?<br/>Add 6</b> |
| <b>0, 8, 16, 24,__,__,...</b> | <b>What is the pattern?<br/>Add 8</b> |

**Ans.**

|                                 |                                       |
|---------------------------------|---------------------------------------|
| <b>0, 3, 6, 9, 12, 15,...</b>   | <b>What is the pattern?<br/>Add 3</b> |
| <b>0, 5, 10, 15, 20, 25,...</b> | <b>What is the pattern?<br/>Add 5</b> |

|                                  |                               |
|----------------------------------|-------------------------------|
| 0, 4, 8, 12, <b>16, 20</b> ,...  | What is the pattern?<br>Add 4 |
| 0, 2, 4, 6, <b>8, 10</b> ,...    | What is the pattern?<br>Add 2 |
| 0, 9, 18, 27, <b>36, 45</b> ,... | What is the pattern?<br>Add 9 |
| 0, 7, 14, 21, <b>28, 35</b> ,... | What is the pattern?<br>Add 7 |
| 0, 6, 12, 18, <b>24, 30</b> ,... | What is the pattern?<br>Add 6 |
| 0, 8, 16, 24, <b>32, 40</b> ,... | What is the pattern?<br>Add 8 |

**(b)**

|                                     |   |
|-------------------------------------|---|
| <b>82, 79, 70, __, __, 55,...</b>   | <b>What is the pattern?<br/>Subtract 3, then subtract 9</b> |
| <b>73, 67, 63, __, __, 47,..</b>    | <b>What is the pattern?<br/>Subtract 6, then subtract 4</b> |
| <b>76, 84, 93, 101, __, __,...</b>  | <b>What is the pattern?<br/>Add 8, then add 9</b>           |
| <b>88, 96, 100, __, __, 120,...</b> | <b>What is the pattern?<br/>Add 8, then add 4</b>           |
| <b>35, 33, 27, __, __, 17,...</b>   | <b>What is the pattern?<br/>Subtract 2, then subtract 6</b> |
| <b>77, 74, 68, __, __, 56,...</b>   | <b>What is the pattern?<br/>Subtract 3, then subtract 6</b> |

|                              |   |
|------------------------------|---|
| 75, 72, 64, 61, __, __, ...  | What is the pattern?<br>Subtract 3, then subtract 8 |
| __, __, 84, 90, 95, 101, ... | What is the pattern?<br>Add 6, then add 5           |

**Ans.**

|   |   |
|---|---|
| 82, 79, 70, <b>67, 58</b> , 55, ...     | What is the pattern?<br>Subtract 3, then subtract 9 |
| 73, 67, 63, <b>57, 53</b> , 47, ...     | What is the pattern?<br>Subtract 6, then subtract 4 |
| 76, 84, 93, 101, <b>110, 118</b> , ...  | What is the pattern?<br>Add 8, then add 9           |
| 88, 96, 100, <b>108, 112</b> , 120, ... | What is the pattern?<br>Add 8, then add 4           |
| 35, 33, 27, <b>25, 19</b> , 17, ...     | What is the pattern?<br>Subtract 2, then subtract 6 |
| 77, 74, 68, <b>65, 59</b> , 56, ...     | What is the pattern?<br>Subtract 3, then subtract 6 |
| 75, 72, 64, 61, <b>53, 50</b> , ...     | What is the pattern?<br>Subtract 3, then subtract 8 |
| <b>73, 79</b> , 84, 90, 95, 101, ...    | What is the pattern?<br>Add 6, then add 5           |

**Q.2. (a) Examine the number pattern below.**

**1,203 , 1,624 , 2,045 , 2,466 ...**

|                                     |   |
|-------------------------------------|---|
| What rule does this pattern follow? | — |
|-------------------------------------|---|

|   |                |
|---|----------------|
| <b>Write the next three numbers in the pattern.</b>                                       | ____,____,____ |
| <b>If the pattern continues, what will the 10<sup>th</sup> number in the sequence be?</b> | ____           |

**Ans.**

|   |                         |
|---|-------------------------|
| What rule does this pattern follow?   | add 421                 |
| Write the next three numbers in the pattern.  | 2,887 ; 3, 308 ; 3, 729 |
| If the pattern continues, what will the 10 <sup>th</sup> number in the sequence be? | 4,992                   |

**(b) Examine the number pattern below.**

**10,000 , 9,899 , 9,798 , 9,697 ...**

|   |                |
|---|----------------|
| <b>What rule does this pattern follow?</b>  | ____           |
| <b>Write the next three numbers in the pattern.</b>                                       | ____,____,____ |
| <b>If the pattern continues, what will the 11<sup>th</sup> number in the sequence be?</b> | ____           |

**Ans.**

|   |                         |
|---|-------------------------|
| What rule does this pattern follow?   | subtract 101            |
| Write the next three numbers in the pattern.  | 9,596 ; 9, 495 ; 9, 394 |
| If the pattern continues, what will the 11 <sup>th</sup> number in the sequence be? | 8,990                   |

**(c) Examine the number pattern below.**

**5,554 , 5,274 , 4,994 , 4,714 ...**

|   |                   |
|---|-------------------|
| <b>What rule does this pattern follow?</b>  | _____             |
| <b>Write the next three numbers in the pattern.</b>                                       | _____,_____,_____ |
| <b>If the pattern continues, what will the 12<sup>th</sup> number in the sequence be?</b> | _____             |

**Ans.**

|   |                        |
|---|------------------------|
| What rule does this pattern follow?   | subtract 280           |
| Write the next three numbers in the pattern.  | 4,434; 4, 154 ; 3, 874 |
| If the pattern continues, what will the 12 <sup>th</sup> number in the sequence be? | 2,474                  |

### **Q.3. Number Patterns (A)**

**Instructions: Write the next three terms in the patterns below.**

|                              |                              |
|------------------------------|------------------------------|
| <b>51, 44, 37, 30,_,_,_.</b> | <b>54, 51, 48, 45,_,_,_.</b> |
| <b>52, 48, 44, 40,_,_,_.</b> | <b>63, 58, 53, 48,_,_,_.</b> |
| <b>7, 9, 11, 13,_,_,_.</b>   | <b>12, 20, 28, 36,_,_,_.</b> |
| <b>4, 10, 16, 22,_,_,_.</b>  | <b>13, 16, 19, 22,_,_,_.</b> |
| <b>10, 18, 26, 34,_,_,_.</b> | <b>23, 29, 35, 41,_,_,_.</b> |
| <b>72, 66, 60, 54,_,_,_.</b> | <b>58, 51, 44, 37,_,_,_.</b> |
| <b>8, 16, 24, 32,_,_,_.</b>  | <b>22, 30, 38, 46,_,_,_.</b> |

|                                |                                |
|--------------------------------|--------------------------------|
| <b>17, 22, 27, 32, _ _ _ .</b> | <b>3, 4, 5, 6, _ _ _ .</b>     |
| <b>68, 64, 60, 56, _ _ _ .</b> | <b>70, 69, 68, 67, _ _ _ .</b> |
| <b>53, 52, 51, 50, _ _ _ .</b> | <b>71, 65, 59, 53, _ _ _ .</b> |

**Ans.**

|                                    |                                    |
|------------------------------------|------------------------------------|
| <b>51, 44, 37, 30, 23, 16, 9.</b>  | <b>54, 51, 48, 45, 42, 39, 36.</b> |
| <b>52, 48, 44, 40, 36, 32, 28.</b> | <b>63, 58, 53, 48, 43, 38, 33.</b> |
| <b>7, 9, 11, 13, 15, 17, 19.</b>   | <b>12, 20, 28, 36, 44, 52, 60.</b> |
| <b>4, 10, 16, 22, 28, 34, 40.</b>  | <b>13, 16, 19, 22, 25, 28, 31.</b> |
| <b>10, 18, 26, 34, 42, 50, 58.</b> | <b>23, 29, 35, 41, 47, 53, 59.</b> |
| <b>72, 66, 60, 54, 48, 42, 36.</b> | <b>58, 51, 44, 37, 30, 23, 16.</b> |
| <b>8, 16, 24, 32, 40, 48, 56.</b>  | <b>22, 30, 38, 46, 54, 62, 70.</b> |
| <b>17, 22, 27, 32, 37, 42, 47.</b> | <b>3, 4, 5, 6, 7, 8, 9.</b>        |
| <b>68, 64, 60, 56, 52, 48, 44.</b> | <b>70, 69, 68, 67, 66, 65, 64.</b> |
| <b>53, 52, 51, 50, 49, 48, 47.</b> | <b>71, 65, 59, 53, 47, 41, 35.</b> |

**Q.4. Part - A**

**(i) Write the greatest odd number formed by the digits 2, 8 and 5.**

**Ans. 825**

**(ii) Write the smallest even number formed by the digits 4, 3, 1 and 6.**

**Ans. 1,346**

**(iii) Write the smallest odd number formed by the digits 7, 2 and 9.**

**Ans. 279**

**(iv) Write the greatest even number formed by the digits 5, 7, 6 and 1.**

\_\_\_\_\_  
**Ans.** 7,516

**Part - B**

**(i) Write all possible odd numbers formed by the digits 3, 6 and 2.**

\_\_\_\_\_  
**Ans.** 263, 623

**(ii) Write all possible even numbers formed by the digits 6, 1 and 8.**

\_\_\_\_\_  
**Ans.** 168, 186, 618, 816

**(iii) Write all possible odd numbers formed by the digits 7, 4 and 9.**

\_\_\_\_\_  
**Ans.** 479, 497, 749, 947

**(iv) Write all possible even numbers formed by the digits 2, 5 and 3.**

\_\_\_\_\_  
**Ans.** 352, 532