



Date : **28/10/2021**

Look for a pattern to determine which model best describes the data:

5.

|     |   |   |    |    |    |
|-----|---|---|----|----|----|
| $x$ | 0 | 1 | 2  | 3  | 4  |
| $y$ | 5 | 8 | 17 | 32 | 53 |

| $y$ | $1^{st} Diff$ | $2^{nd} Diff$ | $Ratio$ |
|-----|---------------|---------------|---------|
| 5   |               |               |         |
| 8   |               |               |         |
| 17  |               |               |         |
| 32  |               |               |         |
| 53  |               |               |         |

Best model is

7.

|     |    |   |    |    |    |
|-----|----|---|----|----|----|
| $x$ | -1 | 0 | 1  | 2  | 3  |
| $y$ | 3  | 6 | 12 | 24 | 48 |

| $y$ | $1^{st} Diff$ | $2^{nd} Diff$ | $Ratio$ |
|-----|---------------|---------------|---------|
| 3   |               |               |         |
| 6   |               |               |         |
| 12  |               |               |         |
| 24  |               |               |         |
| 48  |               |               |         |

Best model is

