

**Find the Number Patterns - Changing Numbers**

Look at this pattern:


**1, 2, 4, 8, ...**

Think and discuss: how are the numbers changing? \_\_\_\_\_

Work out what the next number will be: \_\_\_\_\_

|    |              |   |            |
|----|--------------|---|------------|
| a) | Start number |  | New number |
|    | 1            |   |            |

Look at the pattern  
Remember

|    |              |   |            |
|----|--------------|---|------------|
| b) | Start number |  | New number |
|    | 1            |   |            |

|    |              |     |            |       |            |       |            |   |            |   |            |
|----|--------------|-----|------------|-------|------------|-------|------------|---|------------|---|------------|
| c) | Start number | +   | New number | +     | New number | +     | New number | + | New number | + | New number |
|    | 1            | + 2 | 3          | + ___ | 7          | + ___ | 13         |   | 21         |   |            |

|    |              |       |            |       |            |       |            |   |            |   |            |
|----|--------------|-------|------------|-------|------------|-------|------------|---|------------|---|------------|
| d) | Start number | -     | New number | -     | New number | -     | New number | - | New number | - | New number |
|    | 26           | - ___ | 17         | - ___ | 10         | - ___ | 5          |   | 2          |   | 1          |

## Find the Number Patterns - Changing Numbers

Look at this pattern:

1, 2, 4, 8, ...

Think and discuss: how are the numbers changing? \_\_\_\_\_

They are doubling each time

Work out what the next number will be: 16

|    |              |   |    |            |
|----|--------------|---|----|------------|
| a) | Start number |  |    | New number |
|    | 1            |   | 16 | 32         |
|    | Look at the  |   |    | time.      |
|    | Remember     |   |    |            |
| b) | Start number |   |    | New number |
|    | 1            | 5   |    | 16         |

|    |              |     |            |     |            |     |            |     |            |      |            |
|----|--------------|-----|------------|-----|------------|-----|------------|-----|------------|------|------------|
| c) | Start number | +   | New number | +   | New number | +   | New number | +   | New number | +    | New number |
|    | 1            | + 2 | 3          | + 4 | 7          | + 6 | 13         | + 8 | 21         | + 10 | 31         |

|    |              |     |            |     |            |     |            |     |            |     |            |
|----|--------------|-----|------------|-----|------------|-----|------------|-----|------------|-----|------------|
| d) | Start number | -   | New number | -   | New number | -   | New number | -   | New number | -   | New number |
|    | 26           | - 9 | 17         | - 7 | 10         | - 5 | 5          | - 3 | 2          | - 1 | 1          |