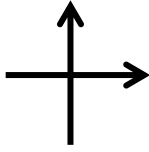
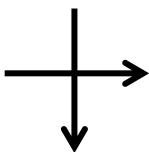
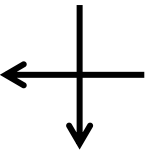




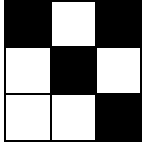
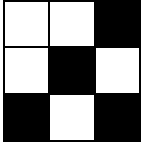
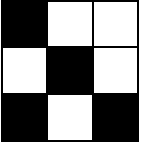













Worksheet

GCSE Mathematics

A. Fill in the missing diagram in each of the following sequences.

	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6
1						
2						
3						
4						
5						
6						

B. i) Fill in the missing terms in the following sequences

ii) Write down the term-to-term rule

Term-to-term rule

1)

1, 2, 3, _____, 5, _____, _____, _____, ...

Add 1 each time

2)

5, _____, 20, 40, _____, _____, 320, ...

3)

326, 322, 318, _____, _____, _____, ...

4)

0, _____, -14, _____, -28, _____, -42 _____, ...

5)

1, -3, 9, _____, _____, -243, _____, -2187, ...

6)

-64, -32, _____, -8, _____, _____, _____, ...

7)

8, 15, 29, 57, _____, _____, _____, 897, ...

8)

6, 20, 62, _____, _____, _____, _____, ...

9)

1, 2, 2, 4, 8, _____, _____, _____, ...

10)

100, 20, 80, 60, 20, _____, _____, _____, ...

Answers

A. Fill in the missing diagram in each of the following sequences.

	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6
1						
2						
3						
4						
5						
6						

- B.** i) Fill in the missing terms in the following sequences
 ii) Write down the term-to-term rule

	Term-to-term rule
1)	1, 2, 3, <u>4</u> , 5, <u>6</u> , <u>7</u> , <u>8</u> , ... <u>+1</u>
2) <u>640</u> , ...	5, <u>10</u> , 20, 40, <u>80</u> , <u>160</u> , 320, <u>x2</u>
3) <u>302</u> , <u>298</u> , ...	326, 322, 318, <u>314</u> , <u>310</u> , <u>306</u> , <u>-4</u>
4) <u>49</u> , ...	0, <u>-7</u> , -14, <u>-21</u> , -28, <u>-35</u> , -42, - <u>-7</u>
5) 2187, ...	1, -3, 9, <u>-27</u> , <u>81</u> , -243, <u>729</u> , - <u>x(-3)</u>
6) ,...	-64, -32, <u>-16</u> , -8, <u>-4</u> , <u>-2</u> , -1, <u>-0.5</u> <u>÷2</u>
7) ,897, ...	8, 15, 29, 57, <u>113</u> , <u>225</u> , <u>449</u> <u>x2, -1</u>
8) <u>15308</u>	6, 20, 62, <u>188</u> , <u>566</u> , <u>1700</u> , <u>5102</u> , <u>x3, +2</u>
9)	1, 2, 2, 4, 8, <u>16</u> , <u>128</u> , <u>2048</u> <u>Product of last 2 terms</u>
10) ,...	100, 20, 80, 60, 20, <u>40</u> , <u>20</u> , <u>20</u> <u>Difference previous 2 terms</u>