

Number Sequences and Patterns – Practice Test 1

1/ Find the next six numbers of in these sequences

- a) Start at 8 and increase by 3 each time
- b) Start at 14 and increase by 2.5 each time
- c) Start at 105 and decrease by 10 each time
- d) Start at 10 and increase by $2\frac{1}{4}$ each time
- e) Start at 800 and divide by 2 each time

2/ Find the missing number in the following number sequences

3, 6, 9,, 15	5, 50, 500,, 50 000	7,, 21, 28,, 42
$\frac{1}{2}$, 1,, 2, $2\frac{1}{2}$	50,, 30, 20, 10	1, 4, 9,
21.2, 21.5, 21.8,, 22.4	4, 8, 16,, 64,	32, 3.2, 0.32,, 0.0032
$96\frac{1}{3}$, $96\frac{2}{3}$, 97, $97\frac{1}{3}$,	5.2, 6.9, 8.6,	19.3, 18.6,, 17.2,

3/ Tom was in a weight lifting competition. On his first lift he lifted 10kg. On his second lift he lifted 15kg. On his third lift he lifted 20kg. On his fourth lift, he lifted 25kg.

Explain the rule for this sequence?

What will Tom lift on his tenth lift?

4/ Dean read a book. On the first day he read up to page 6. On the second day he read up to page 12. On the third day he read up to page 18.

Explain the rule for this sequence?

What page will he be up to on the fourth day?

How many pages will he have read up to on the eleventh day?

5/ Imagine you made the following sequence of patterns using matches. Draw the next three patterns.



Fill out the table below to show how many matches you would need for each diagram number

Diagram Number	1	2	3	4	5	6	10	25
Matchsticks	3	6						

Write the rule for this pattern:

What formula could you use for this pattern?