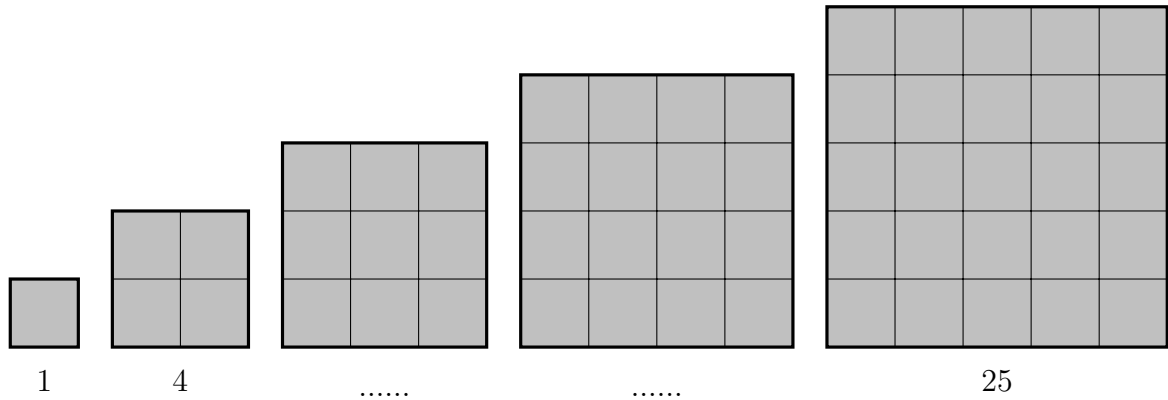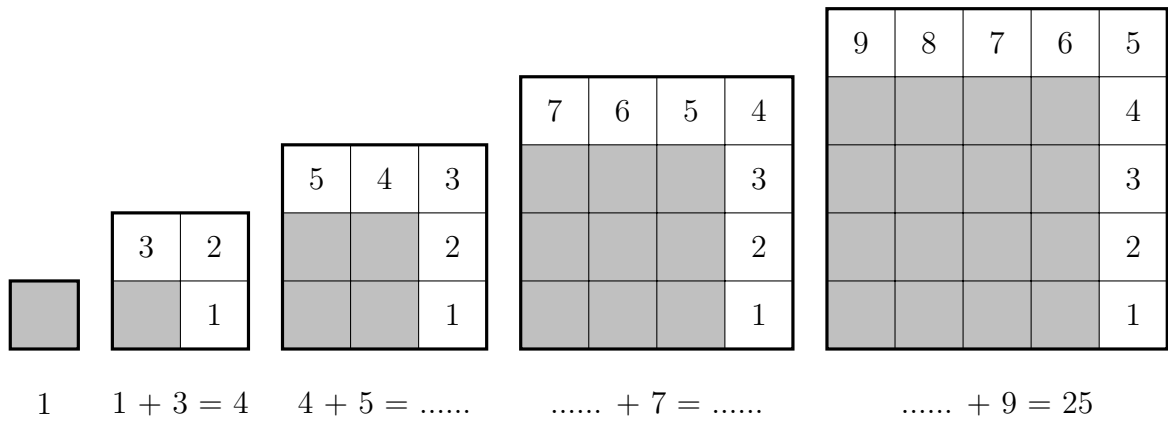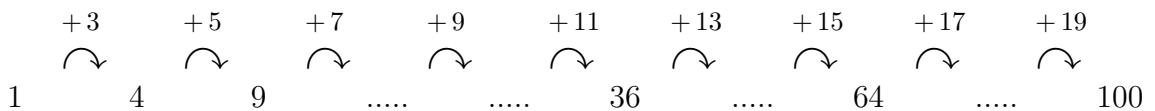1. The area of squares (with side lengths that are a whole number) are called square numbers.

   (a) Complete in the diagram below, the area of the squares, which are square numbers.
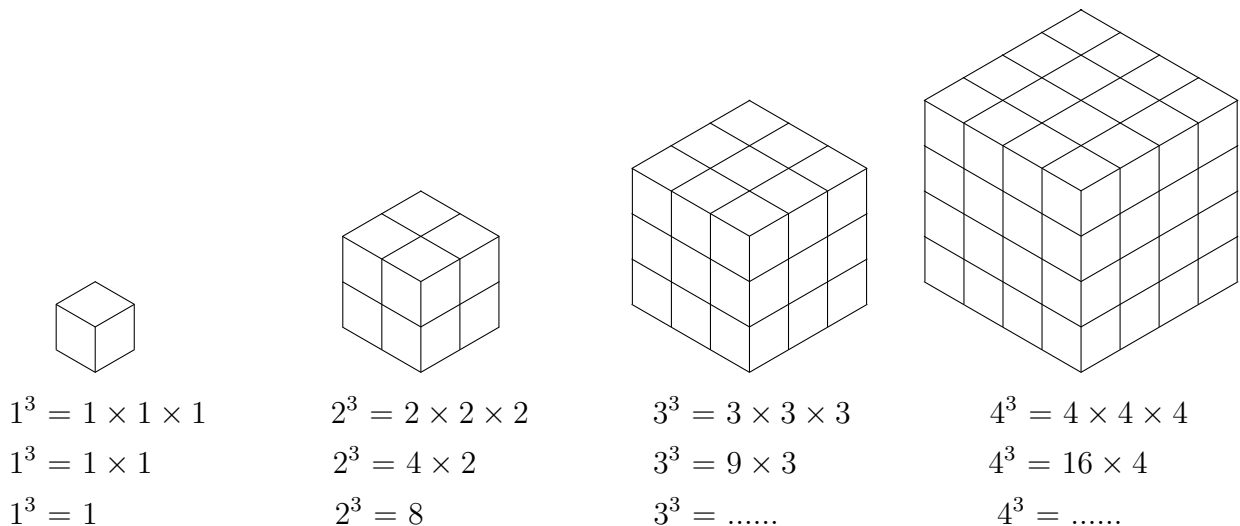
   1　　　4　　　......　　　......　　　25

   (b) Complete the number pattern in the diagram below.
   It shows how to form the next square number by adding on an odd number.

   1　　　$1 + 3 = 4$　　　$4 + 5 = $......　　　...... $+ 7 = $......　　　...... $+ 9 = 25$

   (c) Completing the sequence below, to find the missing square numbers.

   $+3$　$+5$　$+7$　$+9$　$+11$　$+13$　$+15$　$+17$　$+19$

   1　　4　　9　　.....　　.....　　36　　.....　　64　　.....　　100

2. The volume of cubes (with side lengths that are a whole number) are called cube numbers.
   Complete in the diagram below, the volume of the cubes, which are cube numbers.

   $1^3 = 1 \times 1 \times 1$　　$2^3 = 2 \times 2 \times 2$　　$3^3 = 3 \times 3 \times 3$　　$4^3 = 4 \times 4 \times 4$

   $1^3 = 1 \times 1$　　　　$2^3 = 4 \times 2$　　　　$3^3 = 9 \times 3$　　　　$4^3 = 16 \times 4$

   $1^3 = 1$　　　　　$2^3 = 8$　　　　　$3^3 = $......　　　　$4^3 = $......

   Turn over for practice questions and answers.

3. Here is a list of numbers.

$$6 \quad 8 \quad 9 \quad 12 \quad 13 \quad 14 \quad 16 \quad 50 \quad 90$$

From the numbers in the list, write down two square numbers.

3. …………

4. Here is a list of numbers.

$$9 \quad 19 \quad 20 \quad 21 \quad 25 \quad 27 \quad 35 \quad 45$$

From the numbers in the list, write down a cube number.

4. …………

5. Here is a list of numbers.

$$5 \quad 6 \quad 8 \quad 20 \quad 27 \quad 35 \quad 36 \quad 50 \quad 65$$

From the numbers in the list, write down the square number.

5. …………

6. Here is a list of numbers.

$$3 \quad 8 \quad 10 \quad 12 \quad 14 \quad 28 \quad 30 \quad 32 \quad 64$$

From the numbers in the list, write down a square number.

6. …………

7. Here is a list of numbers.

$$4 \quad 8 \quad 10 \quad 16 \quad 17 \quad 18 \quad 24 \quad 100$$

From the numbers in the list, write down a cube number.

7. …………

8. Here is a list of numbers.

$$3 \quad 8 \quad 10 \quad 12 \quad 14 \quad 28 \quad 30 \quad 32 \quad 64$$

From the numbers in the list, write down a square number.

8. …………

Answers: 1a) 9 16   1b) 4 + 5 = 9   9 + 7 = 16   16 + 9 = 25   1c) 16   25   49   81
2) 27   64   3) 9 and 16   4) 27   5) 26   6) 64   7) 125   8) 64