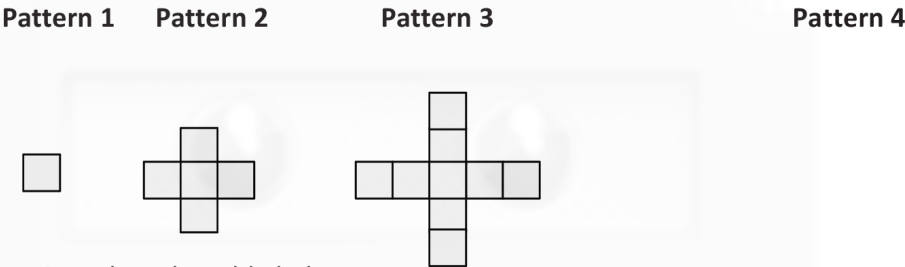


Name: _____

1

The diagram below shows the first 3 patterns in a sequence of patterns of squares.

(a) Draw pattern 4 of the sequence in the space below.



(b) Complete the table below:

	Number of Squares
Pattern 1	1
Pattern 2	5
Pattern 3	
Pattern 4	
Pattern 5	
Pattern 6	

(c) How many squares are there in pattern 9?

(d) Which pattern has 101 squares?

(a) Write the following numbers in order, starting with the smallest: 73%, $\frac{3}{4}$, 0.7, $\frac{4}{5}$.

- (i) Find $\sqrt{3 \times 10^5}$, correct to the nearest whole number.

- [illegible]

(a) In the spaces provided, write down:

(i) 2 natural numbers

and

--

(ii) 2 negative integers

11/11/2019

and

--

(iii) 2 prime numbers

and

(b) A tractor depreciates in value at a rate of 15% per year.

(i) Write 15% as a decimal.

(ii) The tractor was bought for €100 000. Find its value at the end of three years.

Use your calculator to answer the following.

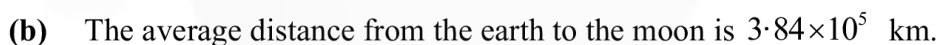
- (a) Find $\sqrt[3]{264 \cdot 3}$, correct to two decimal places.

- (b)** Find the exact value of $\frac{1}{(0.5)^2} - (1.2)^3$.

- (c)** Write down the whole number closest to the value of $\sqrt{70} \times \tan 56^\circ$.

- (i) Tick **each** box opposite the number if the number belongs to that set.

(ii) Mark each of the numbers in the table above on the number line below and label each number clearly.



- [illegible]

