



SATS Revision Homework Sheet

DABs At Liskeard Tutoring

17 - Sequences & Algebra

Q1. Work out these problems mentally:

(allow yourself 10 seconds thinking time)

- When p has the value 10, what is $3p+4$?
- When x has the value 7, what is $3x-2$?
- If z is worth 9, what is $6z+1$?
- If $3k$ is 18, what is k worth?
- If $6r$ is 42, what is r worth?
- If $3x+2 = 14$, what is x worth?

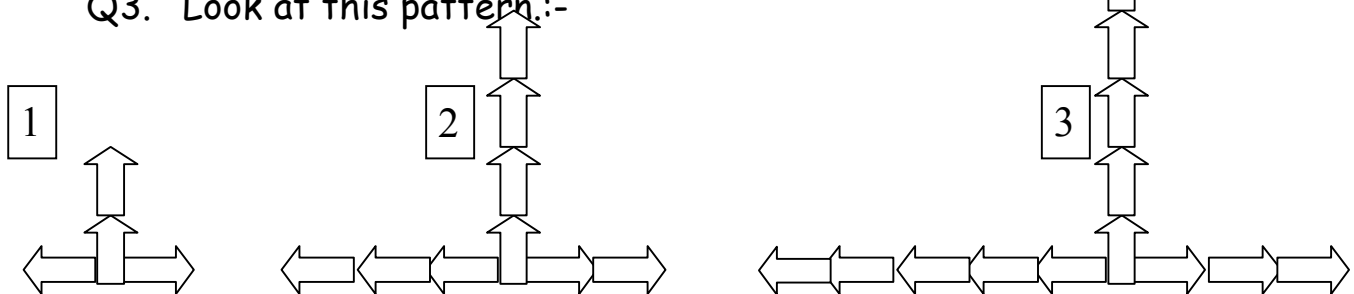
Q2. Complete the following pattern:-

Shape Number	1	2	3	4	5	6	10	n
Number of Squares	4	7	10					

(To get the algebraic pattern, find different ways of getting from the shape number to the number of squares. In this case. $x5 - 1$ or $x2 + 2$ are two possible ways. Test it on the other shape numbers to see if it works)

Hint: What does each number rise by?

Q3. Look at this pattern:-



- How many arrows will be in the next pattern?
- How many arrows will be in shape 10?
- What is the algebraic formula?
- How many arrows in shape 51?

Q4. Solve these (tricky) problems:- (Hint: Remove the 'more than' from the problem)

$P+Q=500$ If P is 100 more than Q , P is _____ and Q is _____

$X+Y=360$ If X is 40 more than Y , X is _____ and Y is _____

$Z+R=1000$ If R is 250 more than Z , R is _____ and Z is _____