



Strathmore Secondary College

400 Pascoe Vale Road
Strathmore VIC 3041
Phone: 03 9379 7999
Fax: 03 9379 2812

Year 7 Maths Homework Sheet No.09

To be completed on loose-leaf paper.

Due date: _____

- For each of the following sequences of numbers, describe the pattern in words and then write down the next three numbers in the pattern.
 - 7, 9, 11, 13, ...
 - 28, 24, 20, 16, ...
 - 3, 6, 12, 24, ...
 - 100 000, 10 000, 1000, ...

- Write down the variable in each of the following mathematical statements:

- a. $12 + b$ b. $3m + 2$ c. $7 \times k + 3d$ d. $2a + 3a$

- Write these phrases as algebraic expressions (let the number be 'n')

- The sum of a number and 7:
- The difference between 9 and a number:
- The sum of 6 times a number and 1:
- The difference between a number squared and 6:
- The product of a number minus 5 and 2:

- Complete the table for the following toothpick pattern



Number of squares (s)	1	2	3	4	5	10	100
Number of toothpicks (t)							

- In words, write the relationship between the number of toothpicks (t), and the number of squares (s) created

- Complete the following tables. Use the rule given in each case to work out the missing input and output numbers.

- Take 9 from each input number.
- Divide each input number by 3

Input	17	12	5			
Output				20	9	80

Input	18	12	63			
Output				11	0	20

- Find the value of the \square in each of the following situations:

- a. $3 + 7 = \square + 5$ b. $5 - 1 = 2 \times \square$ c. $10 \div \square = 5$ d. $\square \times \square = 16$

- Johnny has \$12. He loses half of it then spends \$5. How much does he have left?