



# Year 8 MathsA Homework Sheet No.13

To be completed on loose-leaf paper.



**Aims:**

- To provide ongoing revision of skills and concepts
- To develop procedural knowledge and fluency.

**Need help? →**

1. What is the coefficient of  $x$  in the following expressions?

a.  $6 + 7x$       b.  $45xy - 7x + 3$

2. Substitute  $a = 3$  and  $b = 5$  into the following expressions and simplify:

a.  $2a + 5b$       b.  $2b - ab$       c.  $a + 2b \div 2$

3. Factorise the following expressions:

a.  $3t + 15$       b.  $2a - 8$       c.  $14b + 7ab$

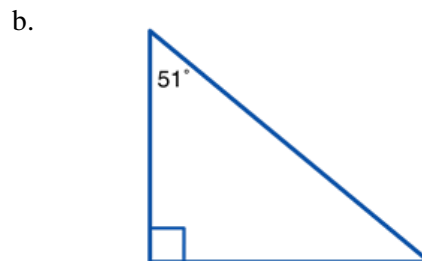
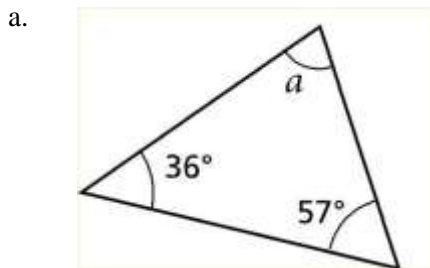
4. Simplify the following expressions by collecting like terms:

a.  $6a + 11a$       b.  $18f - 5f + 6g - 3g$       c.  $6m - 9n - 13m - 2n$

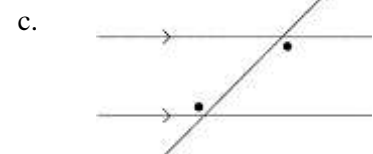
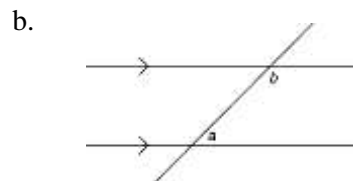
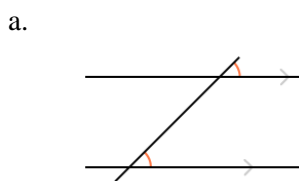
5. Simplify the following expressions:

a.  $5 \times 3a$       b.  $20c \div 5$       c.  $gh \div g$

6. Find the missing angles:



7. Name the following pairs angles and explain why:



**ANSWERS: You must show the mathematics used to get these answers.** Simply writing the answer is not enough.

**Questions 1a) 7, 1b) -7, 2a) 31, 2b) -5, 2c) 8, 3a)  $3(t+5)$ , 3b)  $2(a-4)$ , 3c)  $7b(2+a)$ , 4a)  $17a$ , 4b)  $13f+3g$ , 4c)  $-7m-11n$ , 5a)  $15a$ , 5b)  $4c$ , 5c)  $h$ , 6a)  $87^\circ$ , 6b)  $39^\circ$ , 7a) Corresponding angles, 7b) co-interior angles, 7c) alternate angles**