



# Year 8 MathsA Homework Sheet No.14

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  $mn$  in the following expression?

a.  $7m + 3mn - 4 + 5n$

2. Substitute  $x = 1$  and  $y = 3$  into the following expressions and simplify:

a.  $9x + 2y$       b.  $9xy - 7$       c.  $\frac{3x + 4y}{3x}$

3. Expand and simplify:

a.  $13(a + 2) + 6a$       b.  $8a(2 + 3b) + 5(2a - ab)$

4. Simplify the following expressions by collecting like terms:

a.  $8y - 2y$       b.  $14x - 5y - 6x + 6y$       c.  $6mn - 9n^2 - 13nm - 2n^2$

5. Simplify the following expressions:

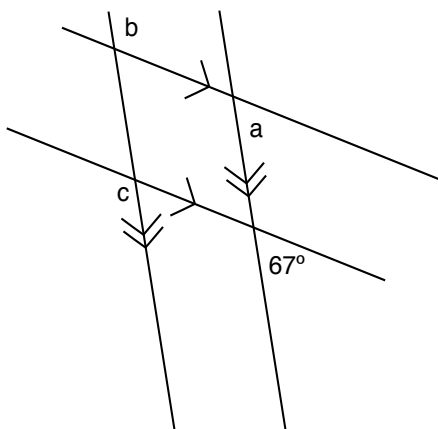
a.  $3 \times 10y$       b.  $8a \times 12b$       c.  $6m \times -n \times -5$

6. Factorise:

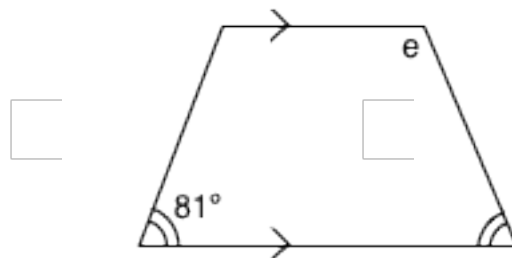
a.  $24m - 8$       b.  $36mn + 24n$

7. Find the missing angles:

a.



b.



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

1 a) 3

2 a) 15 b) 20 c) 5

3 a)  $19a + 26$  b)  $26a + 3ab$

4 a)  $6y$  b)  $8x + y$  c)  $-7mn - 11n^2$

5 a) 30 b)  $96ab$  c)  $30mn$

6 a)  $8(3m - 1)$  b)  $6n(6m + 4)$

$$a = 67^0$$

7 a)  $b = 113^0$  b)  $e = 99^0$

$$c = 113^0$$