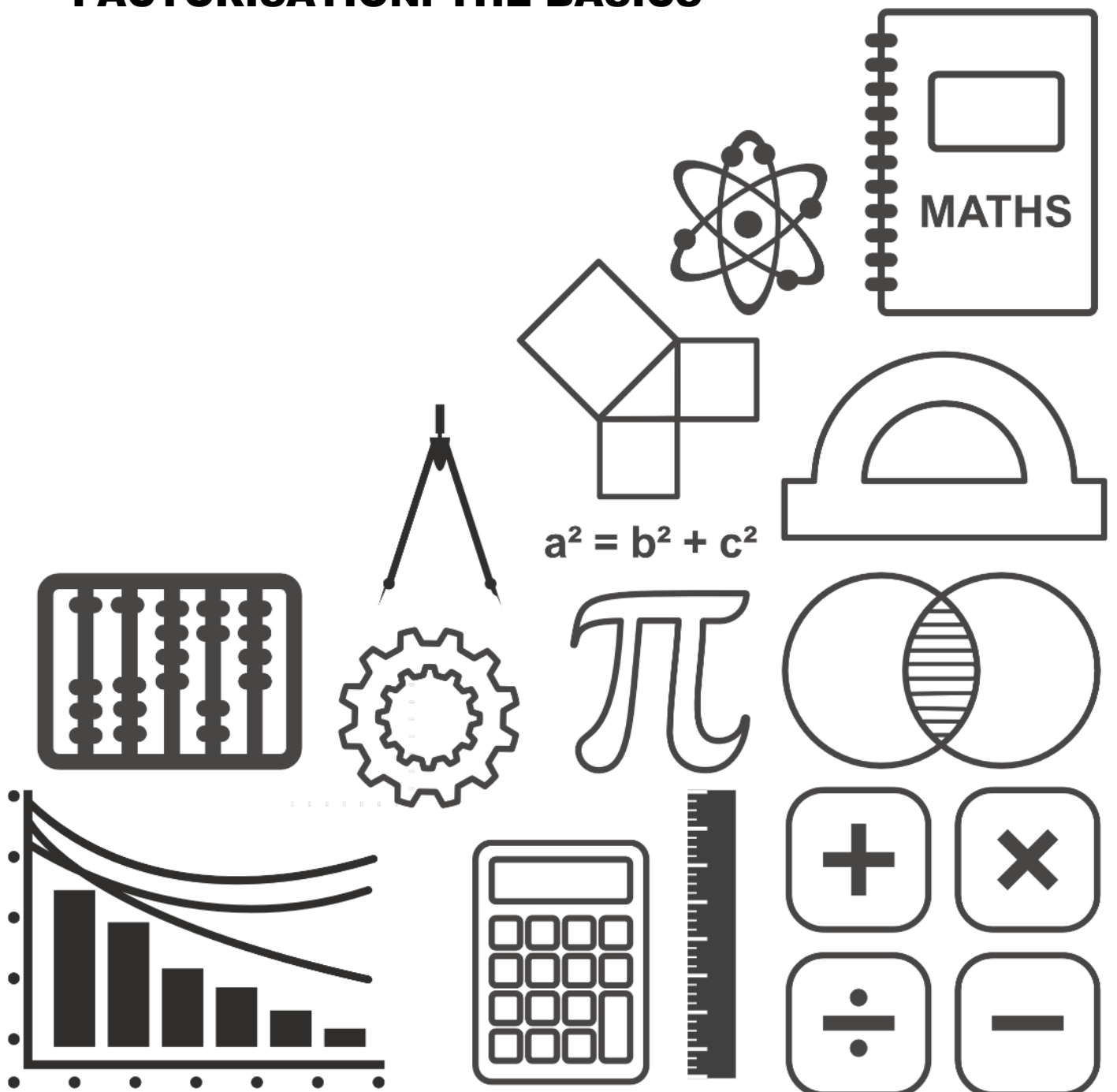


# MATHSDIY

## GCSE TOPIC BOOKLET FACTORISATION: THE BASICS



1. Complete these statements.

a)  $6x + 8y = 2(3x + \quad)$  (1)

b)  $9x - 6y = 3(3x - \quad)$  (1)

c)  $10a + 8b = 2(5a + \quad)$  (1)

d)  $4x - 20y = 4(x - \quad)$  (1)

e)  $18x - 9y = 9(\quad - y)$  (1)

f)  $16x + 8y + 4z = 4(4x + 2y + \quad)$  (1)

g)  $27c + 81d = 27(c + \quad)$  (1)

h)  $15s + 35t = 5(\quad + 7t)$  (1)

i)  $24m - 40n = 8(\quad - \quad)$  (1)

j)  $2xy + 8y^2 = 2y(\quad + \quad)$  (1)

2. Factorise the following expressions.

a)  $8x + 10y$  ..... (1)

b)  $27x - 15y$  ..... (1)

c)  $3x + 12y + 6z$  ..... (1)

d)  $8x - 10y + 40z$  ..... (1)

e)  $35u - 21v$  ..... (1)

f)  $12s - 18t$  ..... (1)

g)  $8x^2 + 16y^2$  ..... (1)

h)  $27a + 63b - 18c$  ..... (1)

i)  $3x^2 - 9y^2 - 15z^2$  ..... (1)

3. Factorise  $3a^2 - 6a$   
.....  
.....  
(2)

4. Factorise  $4x^2 - 6x$   
.....  
.....  
(2)

5. Factorise  $3y^2 - 9y$   
.....  
.....  
(2)

6. Factorise  $8x^2 - 16x$   
.....  
.....  
(2)

7. Factorise  $2b^2 - 6b$   
.....  
.....  
(2)

8. Factorise  $14y + 7y^2$   
.....  
.....  
(2)

9. Factorise  $3a^3 - 6a^2$

.....

.....

(2)

10. Factorise  $4x^2 - 16y^2 - 8z^2$

.....

.....

(2)

11. Factorise  $3ay^2 - 6ay - 9a^2$

.....

.....

(2)

12. Factorise  $15x^2y - 9xyz - 6xy^2$

.....

.....

(2)

13. Factorise  $2m^2n + 6a^2n$

.....

.....

(2)

14. Factorise  $40x^2 - 60y^2 - 30z^2$

.....

.....

(2)