

Name:

Exam Style Questions

Equating Coefficients



Equipment needed: Pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 367



Answers and Video Solutions



1. $5(3x + c) \equiv 15x + 40$



Work out the value of c .

$c = \dots\dots\dots$
(1)

2. Work out the values of c and d in the identity.



$$2(x + 7) + cx + d \equiv 5x + 1$$

$c = \dots\dots\dots$

$d = \dots\dots\dots$
(3)

3. $a(2x + 7) \equiv 8x + 14b$



Work out the values of a and b .

$a = \dots\dots\dots$

$b = \dots\dots\dots$

(3)

4. Work out the values of c and d in the identity.



$$(c - 2)x^2 + 3d \equiv 7x^2 + 9$$

$c = \dots\dots\dots$

$d = \dots\dots\dots$

(2)

5. Work out the values of a and b in the identity.



$$9(2x + 5) + 2(3x + b) \equiv ax + 23$$

a =

b =
(3)

6. Work out the values of a and b in the identity.



$$4(2x + b) + a(x + 3) \equiv 10x + 2$$

a =

b =
(3)

7. Work out the values of a and b in the identity.



$$4(3x + 2) + a(x + b) \equiv 15x - 16$$

$a = \dots\dots\dots$

$b = \dots\dots\dots$
(3)

8. $2ax + 9 - 3(x + b) \equiv 5x - 30$



Work out the values of a and b .

$a = \dots\dots\dots$

$b = \dots\dots\dots$
(3)

9. $(x + 4)(x - 6) + ax + b \equiv x^2 + 8x - 25$



Work out the values of a and b.

a =

b =

(3)

10. $(2x - 5)(2x - 7) + ax^2 + b \equiv 3x^2 - 24x + 12$



Work out the values of a and b.

a =

b =

(3)

11. Work out the values of a and b in the identity.



$$(x - 2)^2 + x + a(x + b) \equiv x^2 + 1$$

a =

b =

(3)

12. $(x + b)^2 \equiv x^2 + cx + 49$



Find the two possible values of c.

c = or c =

(2)

13. $(x + 2c)(x + c) \equiv x^2 + dx + 50$



Find the two possible values of d .

$d = \dots\dots\dots$ or $d = \dots\dots\dots$
(3)

14. $4x^3 + (x + a)(x + b) + cx \equiv ax^3 - 3x^3 + x^2 - x - 42$



Work out the values of a , b and c .

$a = \dots\dots\dots$

$b = \dots\dots\dots$

$c = \dots\dots\dots$

(5)

15. $(ax + 1)(x + 5)(x + b) \equiv 2x^3 + 23x^2 + 71x + 30$



Work out the values of a and b.

a =

b =
(2)

16. Given that



$$(x + a)^2(x - 2) \equiv x^3 + bx^2 - 3x - 18$$

Work out the values of a and b.

a =

b =
(5)

17. Adil expands $(x + 4)(x + c)(2x - 1)$



The coefficient of x^2 is -9

Find the value of c .

.....
(5)