Expanding Brackets

Past Paper Questions
GCSE (9-1)
Higher

There are no rules as to where a topic will come up on a paper, but below is some guidance on which questions to focus on, depending on the grade you are aiming for:

If you are aiming for...
Grade 4/5 - answer up to Q10
Grade 6 - answer up to Q16
Grade 7/8/9 - answer all questions

In the top left of each page you will see which paper and year the question is from. You can find the official mark scheme for each paper on howtorevisemaths.co.uk.

Remember:
- Read the question carefully and show all of your working.
- Make sure you mark your answers and update your progress tracker.
- Check whether the question is non-calculator or calculator.

1 (a) Expand and simplify $(x + 5)(x - 9)$

.....

(2)

(b) Factorise fully $9x^2 + 6x$

.....

(2)

(Total for Question 1 is 4 marks)

2 Expand and simplify $5(p + 3) - 2(1 - 2p)$

.....

(Total for Question 2 is 2 marks)

2 Expand and simplify $(m + 7)(m + 3)$

.....

(Total for Question 2 is 2 marks)

3 (a) Expand and simplify $3(y - 2) + 5(2y + 1)$

.....

(2)

(b) Simplify $5u^2w^4 \times 7uw^3$

.....

(2)

(Total for Question 3 is 4 marks)

9 (a) Expand and simplify $(x - 2)(2x + 3)(x + 1)$

.....

(3)

$$\frac{y^4 \times y^n}{y^2} = y^{-3}$$

(b) Find the value of n.

.....

(2)

(c) Solve $5x^2 - 4x - 3 = 0$
Give your solutions correct to 3 significant figures.

.....

(3)

(Total for Question 9 is 8 marks)

10 Show that $(x + 1)(x + 2)(x + 3)$ can be written in the form $ax^3 + bx^2 + cx + d$ where a, b, c and d are positive integers.

(Total for Question 10 is 3 marks)

12 (a) Express $\frac{x}{x+2} + \frac{2x}{x-4}$ as a single fraction in its simplest form.

(3)

(b) Expand and simplify $(x - 3)(2x + 3)(4x + 5)$

(3)

(Total for Question 12 is 6 marks)

13 Show that

$$(3x - 1)(x + 5)(4x - 3) = 12x^3 + 47x^2 - 62x + 15$$

for all values of x.

(Total of Question 13 is 3 marks)

15 Expand and simplify $(3x + 2)(2x + 1)(x - 5)$

.....

(Total for Question 15 is 3 marks)

18 (a) Show that $(2x + 1)(x + 3)(3x + 7)$ can be written in the form $ax^3 + bx^2 + cx + d$ where a, b, c and d are integers.

(3)

(b) Solve $(1 - x)^2 < \frac{9}{25}$

.....

(3)

(Total for Question 18 is 6 marks)