

Name: _____

Date: _____

Score: _____ / 19

Factoring

Taking out a common factor and factoring simple quadratic trinomials.

Common factor largest factor of every term	Check expand it back	Trinomial find two numbers that multiply and add correctly	$x^2 + 5x + 6$ $= (x+2)(x+3)$
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Section A — Common Factor

Factor fully.

- Factor $6x + 15$
- Factor $12x + 28$
- Factor $20x + 15$
- Factor $6x + 24$
- Factor $14x + 18$
- Factor $16x + 24$

Section B — With a Variable Factor

Factor fully.

- Factor $6x^2 + 8x$
- Factor $10x^2 + 15x$
- Factor $15x^2 + 6x$
- Factor $4x^2 + 24x$

Section C — Simple Trinomials

Factor into two brackets.

- Factor $x^2 + 8x + 15$
- Factor $x^2 + 9x + 14$
- Factor $x^2 + 5x + 4$
- Factor $x^2 + 9x + 18$
- Factor $x^2 + 13x + 40$
- Factor $x^2 + 10x + 9$

Section D — Thinking About Factoring

Answer as asked.

- What is the greatest common factor of $12x$ and 18 ?
- Factor $12x + 18$.
- How can you check a factorisation?

Factoring — Answer Key

For marking. Accept equivalent correct forms.

Section A — Common Factor

1. $3(2x + 5)$

2. $4(3x + 7)$

3. $5(4x + 3)$

4. $6(x + 4)$

5. $2(7x + 9)$

6. $8(2x + 3)$

Section B — With a Variable Factor

7. $2x(3x + 4)$

8. $5x(2x + 3)$

9. $3x(5x + 2)$

10. $4x(x + 6)$

Section C — Simple Trinomials

11. $(x + 3)(x + 5)$

12. $(x + 2)(x + 7)$

13. $(x + 1)(x + 4)$

14. $(x + 3)(x + 6)$

15. $(x + 5)(x + 8)$

16. $(x + 1)(x + 9)$

Section D — Thinking About Factoring

17. 6

18. $6(2x + 3)$

19. expand it and compare with the original