

Name:

Exam Style Questions

Factorisation



Corbettmaths

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 117



Answers and Video Solutions



1. Factorise



$$3y + 15$$

$$\frac{3(y+5)}{\dots\dots\dots} \quad (1)$$

2. Factorise



$$4w - 6$$

$$\frac{2(2w-3)}{\dots\dots\dots} \quad (1)$$

3. Factorise



$$5m + 15$$

$$\frac{5(m+3)}{\dots\dots\dots} \quad (1)$$

4. Factorise



$$15y + 20$$

$$\frac{5(3y+4)}{\dots\dots\dots} \quad (1)$$

5. Factorise



$$18x + 9$$

$$\frac{9(2x+1)}{\dots\dots\dots} \quad (1)$$

6. Neena is trying to factorise $22x - 33$



Her answer is $11(2x + 3)$

Explain why Neena is incorrect.

Neena has put an addition sign in the bracket,
but it should be a subtraction.

(1)

7. Factorise



$$27x - 45$$

$$9(3x - 5)$$

(1)

8. Factorise



$$14x + 20$$

$$2(7x + 10)$$

(1)

9. Factorise



$$4x + 12y$$

$$4(x + 3y)$$

(1)

10. Factorise fully



$$100x - 40$$

$$\frac{20(5x - 2)}{(2)}$$

11. Factorise



$$21x + 35y - 14z$$

$$\frac{7(3x + 5y - 2z)}{(2)}$$

12. Factorise



$$a^2 + 3a$$

$$\frac{a(a + 3)}{(1)}$$

13. Factorise



$$w^2 - 5w$$

$$\frac{w(w - 5)}{(1)}$$

14. Factorise fully



$$2x^2 + 10x$$

$$2x(x + 5)$$

$$\underline{\underline{2x(x + 5)}}$$

(2)

15. Factorise fully



$$9y^2 + 6y$$

$$\underline{\underline{3y(3y + 2)}}$$

(2)

16. Factorise fully



$$24x^2 + 20x$$

$$4x(6x + 5)$$

$$\underline{\underline{4x(6x + 5)}}$$

(2)

17. Factorise fully



$$21x^2 - 14x$$

$$7x(3x - 2)$$

$$\underline{\underline{7x(3x - 2)}}$$

(2)

18. George is trying to fully factorise $8x^2 - 12x$



His final answer is $2(4x^2 - 6x)$

Explain why George is incorrect.

$$4x(2x - 3)$$

- 1) George should have a 4 outside the bracket instead of 2.
2) Also the x should be outside the bracket too.

(2)

19. Factorise fully



$$24y^2 - 18y$$

$$6y(4y - 3)$$

(2)

20. Factorise



$$c^3 + 2c$$

$$c(c^2 + 2)$$

(1)

21. Factorise



$$2w^2 + w$$

$$w(2w + 1)$$

(1)

22. Factorise fully



$$9m^2 - 12mp$$

$$\underline{3m(3m - 4p)} \\ (2)$$

23. Factorise



$$6w + 10x$$

$$\underline{2(3w + 5x)} \\ (1)$$

24. Factorise



$$12 + 4p$$

$$\underline{4(3 + p)} \\ (1)$$

25. Factorise



$$y - y^2$$

$$\underline{y(1 - y)} \\ (1)$$

26. Factorise fully



$$20a^2c + 30ac$$

$$\underline{10ac(2a + 3)}$$

(2)

27. Factorise fully



$$6x^3 + 8x^2y$$

$$\underline{2x^2(3x + 4y)}$$

(2)

28. Factorise fully



$$w^2y + wy^2$$

$$\underline{wy(w + y)}$$

(2)

29. Factorise completely



$$8ap + 12cp - 4p^2$$

$$\underline{4p(2a + 3c - p)}$$

(3)