

Calculus Factorising Practice #3

Factorise to whole number terms

1. $32x^3 + 164x^2 + 188x + 21$

2. $36x^3 - 156x^2 + 91x + 49$

3. $8x^3 + 94x^2 + 339x + 378$

4. $14x^3 + 53x^2 + 18x - 45$

5. $48x^3 + 278x^2 + 337x - 168$

6. $14x^3 + 111x^2 - 38x - 240$

7. $6x^3 + 65x^2 + 141x + 40$

8. $30x^3 + 47x^2 + 24x + 4$

9. $16x^3 + 20x^2 - 4x - 5$

10. $20x^3 - 72x^2 - 161x + 360$

11. $32x^3 - 60x^2 - 548x - 495$

12. $18x^3 + 27x^2 - 140x - 100$

13. $6x^3 - 61x^2 + 9x + 10$

14. $20x^3 + 88x^2 + 71x - 60$

15. $18x^3 + 63x^2 + 64x + 20$

16. $12x^3 - 19x^2 - 262x - 336$

17. $12x^3 - 32x^2 - 77x + 147$

18. $20x^3 + 36x^2 - 5x - 9$

19. $6x^3 + 49x^2 + 119x + 90$

20. $18x^3 - 87x^2 - 82x + 88$

Answers: Calculus Factorising Practice #3

1. $32x^3 + 164x^2 + 188x + 21 = (8x + 1)(2x + 7)(2x + 3)$
2. $36x^3 - 156x^2 + 91x + 49 = (6x - 7)(2x - 7)(3x + 1)$
3. $8x^3 + 94x^2 + 339x + 378 = (4x + 9)(x + 6)(2x + 7)$
4. $14x^3 + 53x^2 + 18x - 45 = (7x - 5)(2x + 3)(x + 3)$
5. $48x^3 + 278x^2 + 337x - 168 = (8x - 3)(2x + 7)(3x + 8)$
6. $14x^3 + 111x^2 - 38x - 240 = (7x + 10)(2x - 3)(x + 8)$
7. $6x^3 + 65x^2 + 141x + 40 = (3x + 1)(2x + 5)(x + 8)$
8. $30x^3 + 47x^2 + 24x + 4 = (5x + 2)(2x + 1)(3x + 2)$
9. $16x^3 + 20x^2 - 4x - 5 = (4x + 5)(2x - 1)(2x + 1)$
10. $20x^3 - 72x^2 - 161x + 360 = (5x - 8)(2x - 9)(2x + 5)$

11. $32x^3 - 60x^2 - 548x - 495 = (8x + 9)(2x - 11)(2x + 5)$
12. $18x^3 + 27x^2 - 140x - 100 = (3x + 10)(2x - 5)(3x + 2)$
13. $6x^3 - 61x^2 + 9x + 10 = (2x - 1)(x - 10)(3x + 1)$
14. $20x^3 + 88x^2 + 71x - 60 = (5x + 12)(2x - 1)(2x + 5)$
15. $18x^3 + 63x^2 + 64x + 20 = (6x + 5)(x + 2)(3x + 2)$
16. $12x^3 - 19x^2 - 262x - 336 = (4x + 7)(x - 6)(3x + 8)$
17. $12x^3 - 32x^2 - 77x + 147 = (2x - 7)(2x - 3)(3x + 7)$
18. $20x^3 + 36x^2 - 5x - 9 = (5x + 9)(2x - 1)(2x + 1)$
19. $6x^3 + 49x^2 + 119x + 90 = (3x + 5)(x + 2)(2x + 9)$
20. $18x^3 - 87x^2 - 82x + 88 = (3x - 2)(2x - 11)(3x + 4)$