

Algebra 2BE - Mixed Factoring Practice

1. $6x+3$ $3(2x+1)$
2. $10x^2y-15xy^2$ $5xy(2x-3y)$
3. $17x^2+34x+51$ $17(x^2+2x+3)$
4. $x^2+8x+15$ $(x+5)(x+3)$
5. $x^2+8x+10$ prime
6. $x^2-3x-70$ $(x-10)(x+7)$
7. x^2-25 $(x-5)(x+5)$
8. $4a^2-49$ $(2a-7)(2a+7)$
9. $1-9y^2$ $(1-3y)(1+3y)$
10. $16x^4-y^2$ $(4x^2-y)(4x^2+y)$
11. x^3-27 $(x-3)(x^2+3x+9)$
12. x^3+27 $(x+3)(x^2-3x+9)$
13. $2x^2-5x-3$ $(2x+1)(x-3)$
14. $3x^2+10x-8$ $(3x-2)(x+4)$
15. $2y^4-3y^2-20$ $(2y^2+5)(y-2)(y+2)$
16. $3x^2-27x-108$ $3(x+3)(x-12)$
17. $4x^2+10x-6$ $2(2x-1)(x+3)$
18. x^3-5x^2-x+5 $(x-1)(x+1)(x-5)$
19. x^4-2x^2-15 $(x^2-5)(x^2+3)$
20. $x^6+2x^4-16x^2-32$ $(x-2)(x+2)(x^2+4)(x^2+2)$
21. x^6-4x^2 $x^2(x^2-2)(x^2+2)$
22. $2x^2-13x+20$ $(2x-5)(x-4)$
23. $4x^3-x^2-4x+1$ $(x-1)(x+1)(4x-1)$
24. $8x^4+10x^2-3$ $(2x-1)(2x+1)(2x^2+3)$
25. $x^2+8x+16$ $(x+4)^2$
26. $18x+36x^2+9x^3$ $9x(2+4x+x^2)$
27. x^2+2x-6 prime
28. $2x^2-8$ $2(x-2)(x+2)$
29. $27a^3-8b^3$ $(3a-2b)(9a^2+6ab+4b^2)$
30. x^2+49 prime
31. What is the common factor of x^2-16 and $x^2-9x+20$? $x-4$
32. If $4x$ is one factor of $4x^2-12x$, what is the other? $x-3$
33. $1-\cos^2\theta$ $(1-\cos\theta)(1+\cos\theta)$
34. $3x^2+x-2$ $(3x-2)(x+1)$
35. $8x^2-18$ $2(2x-3)(2x+3)$