Section 3.8: Factoring Special Polynomials

Difference of Squares

Multiply:

$(x+5)(x-5)$

	x	$+5$
x	x^2	$+5x$
-5	$-5x$	-25

x^2-25

Factor

1. x^2-49

$(x+7)(x-7)$

2. x^2-100

$(x-10)(x+10)$

3. $4x^2-25$

$\sqrt{4x^2}$ $\sqrt{25}$

$2x$ 5

$(2x+5)(2x-5)$

4. $9x^2-64$

$(3x-8)(3x+8)$

5. $8x^2-32$

GCF factoring

$8(x^2-4)$

$8(x+2)(x-2)$

6. $75x^2-27$

GCF = 3

$3(25x^2-9)$

$3(5x+3)(5x-3)$

7. $81x^2-1$

$(9x+1)(9x-1)$

1. $(a-7)(a+7)$
2. $(a-8)(a+8)$
3. $(p-12)(p+12)$
4. $(b-5)(b+5)$
5. $(x-3)(x+3)$
6. $(x-2)(x+2)$
7. $(k-11)(k+11)$
8. $(k-6)(k+6)$
9. $(n-17)(n+17)$
10. $(n-13)(n+13)$
11. $(2x-5)(2x+5)$
12. $(4b-1)(4b+1)$
13. $(3a-2)(3a+2)$
14. $(n-4)(n+4)$
15. $(3b-5)(3b+5)$
16. $(1-a)(1+a)$
17. $(4r-5)(4r+5)$
18. $(m+3)(m-3)$
19. $(5m-3)(5m+3)$
20. $(4v-3)(4v+3)$
21. $(y-x)(y+x)$
22. $(11y-6x)(11y+6x)$
23. $(3u-2v)(3u+2v)$
24. $(8a-5b)(8a+5b)$
25. $(12x-5y)(12x+5y)$
26. $(5u-v)(5u+v)$
27. $(11x-3y)(11x-3y)$
28. $(7x-2y)(7x+2y)$
29. $(9x-11y)(9x+11y)$
30. $(6x-y)(6x+y)$