Kuta Software - Infinite Algebra 1

Name Key

Factoring Special Cases

Date Period

Factor each completely.

1) $16n^2 - 9$

$(4n+3)(4n-3)$

2) $4m^2 - 25$

$(2m+5)(2m-5)$

3) $16b^2 - 40b + 25$

4b 5

$(4b-5)^2$

4) $4x^2 - 4x + 1$

2x 1

$(2x-1)^2$

5) $9x^2 - 1$

$(3x+1)(3x-1)$

6) $n^2 - 25$

$(n+5)(n-5)$

7) $n^4 - 100$

$(n^2+10)(n^2-10)$

8) $a^4 - 9$

$(a^2+3)(a^2-3)$

9) $k^4 - 36$

$(k^2+6)(k^2-6)$

10) $n^4 - 49$

$(n^2+7)(n^2-7)$

11) $98n^2 - 200$

$2(49n^2 - 100)$

$\boxed{2(7n+10)(7n-10)}$

12) $3 + 6b + 3b^2$

$3b^2 + 6b + 3$

$3(b^2 + 2b + 1)$

$\boxed{3(b+1)^2}$

13) $400 - 36v^2$

$4(100 - 9v^2)$

$\boxed{4(10+3v)(10-3v)}$

14) $100x^2 + 180x + 81$

$\boxed{(10x+9)^2}$

15) $10n^2 + 100n + 250$

$10(n^2 + 10n + 25)$

$\boxed{10(n+5)^2}$

16) $49n^2 - 56n + 16$

$\boxed{(7n-4)^2}$

17) $49x^2 - 100$

$\boxed{(7x+10)(7x-10)}$

18) $1 - r^2$

$\boxed{(1+r)(1-r)}$

19) $10p^3 - 1960p$

$10p(p^2 - 196)$

$\boxed{10p(p+14)(p-14)}$

20) $343b^2 - 7b^4$

$7b^2(49 - b^2)$

$\boxed{7b^2(7+b)(7-b)}$

21) $81v^4 - 900v^2$

$9v^2(9v^2 - 100)$

$\boxed{9v^2(3v+10)(3v-10)}$

22) $200m^4 + 80m^3 + 8m^2$

$8m^2(25m^2 + 10m + 1)$

$\boxed{8m^2(5m+1)^2}$