Name_____

Assignment : Factorization

Date_____

Factor each completely.

1) $x^2 - 9y^2$

2) $x^2 - 16y^2$

3) $25x^2 + 30x + 9$

4) $9k^2 + 24k + 16$

5) $100p^2 - 49$

6) $49x^2 - 100$

7) $u^2v - uv^2 - 30v^3$

8) $3nm^2 - 30n^2m$

9) $12b^3 + 32b^2 + 21b + 56$

10) $12b^3 - 6b^2 + 14b - 7$

11) $n^2 - 16$

12) $25m^2 + 30m + 9$

Solve each equation by factoring.

13) $p^2 + 7p = -10$

14) $x^2 = 14 + 5x$

15) $7x^2 - 50x - 48 = 0$

16) $5n^2 - 18n - 35 = 0$

Answers to Assignment : Factorization

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

2) $(x + 4y)(x - 4y)$

3) $(5x + 3)^2$

4) $(3k + 4)^2$

5) $(10p + 7)(10p - 7)$

6) $(7x + 10)(7x - 10)$

7) $v(u + 5v)(u - 6v)$

8) $3nm(m - 10n)$

9) $(4b^2 + 7)(3b + 8)$

10) $(6b^2 + 7)(2b - 1)$

11) $(n + 4)(n - 4)$

12) $(5m + 3)^2$

13) $\{-5, -2\}$

14) $\{7, -2\}$

15) $\left\{-\dfrac{6}{7}, 8\right\}$

16) $\left\{-\dfrac{7}{5}, 5\right\}$