

## Math 2 Unit 1

**HW 1-1** Factor each expression completely.

1.  $4d^4 - 2d^{10} + 12d^5$

2.  $8x^6 + 2x^5 - 10x^9$

3.  $24a^2b^5 - 48a^3b^7$

4.  $2x^2 + 4xy - 6x - 12y$

5.  $2ah + h + 2ab + b$

6.  $X^2 - 25$

7.  $2a^2 + 4a + 3ab + 6b$

8.  $25d^3 - 100d^2 - d + 4$

9.  $y^3 - 7y^2 + 4y - 28$

10.  $9g^2 - 25$

11.  $X^4 - 16$

12.  $3x^2 - 75$

**HW 1-2** Factor each expression completely.

1.  $x^2 - 18x + 80$

2.  $5x^2y - x^2 + 5y - 1$

3.  $3y^2 - 15y + 18$

4.  $a^3 - a^2b + ab^2 - b^3$

5.  $x^4 - 15x^3 + 56x^2$

6.  $k^2 - 8k + 16$

7.  $2z^2 - 12z + 18$

8.  $c^4 + c^3 - 12c - 12$

9.  $25y^2 - 100$

**HW 1-4** Solve each equation by factoring.

1.  $x^2 - 4x - 12 = 0$

3.  $n^2 + 25 = 10n$

5.  $7x^2 = 4x$

7.  $5w^2 - 35w + 60 = 0$

9.  $15v^2 + 19v + 6 = 0$

11.  $36k^2 = 25$

13.  $6e^3 = 5e^2 + 6e$

**HW1-5** Solve each equation by factoring.

2.  $y^2 - 16y + 64 = 0$

4.  $9z = 10z^2$

6.  $c^2 = 2c + 99$

8.  $3d^2 + 24d + 45 = 0$

10.  $4j^2 + 6 = 11j$

12.  $12m^3 - 8m^2 = 15m$

14.  $9 = 64p^2$