U1L3 - Factoring Practice

Factor by finding the Common Factor.

1) $360xamy + 40xam^2 - 135m^2ay - 15m^3a$

2) $196xy - 252x + 252by - 324b$

Factor by grouping.

3) $8n^3 - 10n^2 - 20n + 25$

4) $6v^3 + 3v^2 + 10v + 5$

Factor each Difference of Squares completely.

5) $4x^2 - 1$

6) $4x^2 - 9$

7) $25a^2 - 4$

8) $16b^2 - 1$

9) $x^2 - 4$

10) $16n^2 - 25$

Factor each Perfect Square completely.

11) $25n^2 - 40n + 16$

12) $9k^2 - 12k + 4$

13) $m^2 + 2m + 1$

14) $16m^2 - 24m + 9$

Factor each completely. Note - check for common factors and some might not be factorable!

15) $n^3 + 5n^2$

16) $n^2 + 8n + 12$

17) $4n^2 - 36n + 56$

18) $v^2 + 14v - 90$

19) $x^4 - 3x^3 - 4x^2$

20) $x^2 + 2x - 8$

21) $n^2 - 3n + 3$

22) $n^4 - 10n^3$

Factor each completely. Note - there are no common factors here.

23) $3a^2 + 17a + 10$

24) $2n^2 + 11n - 40$

25) $2x^2 - 3x - 2$

26) $7n^2 - 17n - 12$

27) $9k^2 + 46k - 48$

28) $9n^2 - 86n + 45$

29) $10a^2 + 91a - 90$

30) $9b^2 - 16b + 7$