SM 2

Name:_____ Period:_____

SM2 HW 5.4 Factoring with a Leading Coefficient

Factor each trinomial completely. Don't forget to check for a common factor first. If the polynomial is prime, say so.

1. $5n^2+22n+8$

$ac=$_____ $b=$____

Factors of ac:

Which factors add to b?

Factor the expression.

2. $4n^2-9$

$ac=$_____ $b=$____

Factors of ac:

Which factors add to b?

Factor the expression.

3. $3h^2-h-14$

$ac=$_____ $b=$____

Factors of ac:

Which factors add to b?

Factor the expression.

4. $12n^2+14n-6$

$ac=$_____ $b=$____

Factors of ac:

Which factors add to b?

Factor the expression.

5. $5x^2+16x-6$

$ac=$_____ $b=$____

Factors of ac:

Which factors add to b?

Factor the expression.

6. $4x^2+16x+7$

$ac=$_____ $b=$____

Factors of ac:

Which factors add to b?

Factor the expression.

7. $3v^2 - 16v + 21$

8. $9k^3 + 15k^2 - 36k$

9. $7n^2 - 4n - 3$

10. $25t^2 - 1$

11. $-18p^2 + 33p - 9$

12. $9q^2 + 40q + 16$

13. $2v^2 - 9v + 10$

14. $3z^2 - 12z - 8$

15. $9k^2 + 22k + 8$

16. In your own words, explain how to factor a trinomial of the form $ax^2 + bx + c$.