Name _____ Date _____ Class_____

Factoring by GCF

Factor each polynomial (take out the GCF). Check your answer.

1. $8c^2 + 7c$

2. $3n^3 + 12n^2$

3. $15x^5 - 18x$

_____ _____ _____

4. $-8s^4 + 20t^3 - 28$

5. $6n^6 + 18n^4 - 24n$

6. $-5m^4 - 5m^3 + 5m^2$

_____ _____ _____

7. A ball is hit vertically into the air using a paddle at a
   speed of 32 ft/sec. The expression $-16t^2 + 32t$ gives
   the ball's height after t seconds. Factor this expression.   _____

8. The area of Margo's laptop computer screen is
   $12x^2 + 3x$ in^2. Factor this polynomial to find expressions
   for the dimensions of her computer screen.   _____

Factor each expression.

9. $3m(m + 5) + 4(m + 5)$

10. $16b(b - 3) + (b - 3)$

_____ _____

Factor each polynomial by grouping.

11. $2x^3 + 8x^2 + 3x + 12$

12. $4n^3 + 3n^2 + 4n + 3$

_____ _____

13. $10d^2 - 6d + 35d - 21$

14. $12n^3 - 15n^2 - 8n + 10$

_____ _____

15. $5b^4 - 15b^3 + 3 - b$

16. $t^3 - 5t^2 + 10 - 2t$

_____ _____