

Trig 2-3 Factoring by Grouping

Name: _____

Time Start: _____ Finish: _____

Total Time = _____

_____ **1.** $x^3 + 7x^2 + 2x + 14$

_____ **2.** $3x^2 + xy - 12x - 4y$

_____ **3.** $x^3 - 2x^2 - 5x - 10$

_____ **4.** $3xy + 21x - 2y - 14$

_____ **5.** $5v^3 + 15v^2 + 4v + 12$

_____ **6.** $2x^3 - 5x^2 + 6x - 15$

_____ **7.** $10k^3 - 5k^2 + 8k - 4$

_____ **8.** $20b^3 - 16b^2 + 5b - 4$

_____ **9.** $9x^3 - 3x^2 + 3x - 1$

_____ **10.** $10x^3 - 6x^2 + 15x - 9$

_____ **11.** $x^3 + 4x^2 + 2x + 8$

_____ **12.** $25n^3 - 5n^2 + 15n - 3$

_____ **13.** $15x^3 - 10x^2 + 12x - 8$

_____ **14.** $16x^3 + 12x^2 + 20x + 15$

SAT Questions

- _____ 15. If $\frac{x}{3} = x^2$, the value of x can be which of the following?
- I. $-\frac{1}{3}$
 - II. 0
 - III. $\frac{1}{3}$
- A. I only B. II only C. III only D. II and III only E. I, II, and III
-
- _____ 16. How many integers from the set of all integers from 1 to 100 inclusive are NOT the cube of an integer?
- A. 93 B. 94 C. 95 D. 96 E. 97
-
- _____ 17. If $3x = y + z$, $y = 6 - z$, and $z + x = 8$, what is the value of $\frac{y}{z}$?
-
- _____ 18. If A is the least positive 5-digit integer with *nonzero* digits, none of which is repeated, and B is the greatest of such positive integers, then $B - A =$
- A. 41,976 B. 66,666 C. 86,420 D. 86,424 E. 89,999