

Trig 2-4 Factoring Cubic Polynomials (SOFAS)

Name: _____

Time> Start: _____ Finish: _____ Total Time = _____

_____ 1. $x^3 - 125$

_____ 2. $x^3 + 125$

_____ 3. $8x^3 - 27$

_____ 4. $27n^3 + 8$

_____ 5. $64n^3 - 27$

_____ 6. $y^3 - 216$

_____ 7. $r^3 + 64$

_____ 8. $y^3 - 8$

_____ 9. $1000y^3 - 27$

_____ 10. $8n^3 - 27y^3$

_____ 11. $27n^3 + 125y^3$

_____ 12. $64x^3 - 343n^3$

_____ 13. $8n^3 + 729y^3$

_____ 14. $n^3 - y^3$

_____ 15. $1000x^3 + 729y^3$

SAT Questions

- _____ [16.] If \sqrt{x} is an odd integer, which of the following MUST be even?
A. x B. $3\sqrt{x}$ C. $\sqrt{2x}$ D. $2\sqrt{x}$ E. x^2

- _____ [17.] If $4 + \sqrt{b} = 7.2$, what is the value of $4 - \sqrt{b}$?

- _____ [18.] $\frac{b-a}{a} = x$
 $\frac{b+a}{a} = y$

In the equations above, if $a \neq 0$, which of the following is equal to $(x - y)(x + y)$?

- A. $-4a$ B. $-4b$ C. $\frac{-4b}{a}$ D. $\frac{b^2 - a^2}{a}$ E. $\frac{b^2 - a^2}{a^2}$

- _____ [19.] If $\sqrt{2p} = \sqrt{18}$, what is the value of p ?

- _____ [20.] The average (arithmetic mean) of five different integers is 30. If the least of these integers is 7, what is the greatest possible value of any of the numbers?