Algebra I | Tues. 4-9-13 | Class Notes

(55) -9 — zero degree monomial

(56) $-x^3$ — cubic monomial

(59) $-8r^3 + 10r^6$ — 6th degree binomial

(61) $-2 - 5b + 5b^2$ — quadratic trinomial

$5b^2 - 5b - 2$

(64) $-7N^6 - 4N^4 + 2N^3 - 7N^5$

6th degree, 4 term polynomial

(62) $-8x$ linear monomial

(66) $10K^3 - 8K^2 - 9K + 9$

cubic, 4 term polynomial

(67) $\left(\frac{19}{4}N - \frac{15}{4}N^4\right) + \left(\frac{6}{7}N^4 - 2N^3 + \frac{1}{3}N\right)$

$\frac{19}{4}N - \frac{15}{4}N^4 + \frac{6}{7}N^4 - 2N^3 + \frac{1}{3}N$

$\frac{57}{12}N + \frac{4}{12}N = \frac{61}{12}N$

$-\frac{105}{28}N^4 + \frac{24}{28}N^4 = -\frac{81}{28}N^4$

$$-\frac{81}{28}N^4 - 2N^3 + \frac{61}{12}N$$

(75) $\left(\frac{1}{2}x + \frac{11}{8}\right)\left(\frac{7}{8}x - \frac{15}{8}\right)$

$$\frac{7}{16}x^2 - \frac{15}{16}x + \frac{77}{64}x - \frac{165}{64}$$

$$-\frac{60}{64}x + \frac{77}{64}x$$

$$\frac{7}{16}x^2 + \frac{17}{64}x - \frac{165}{64}$$

---

(83) $(3r-4)^2$ $\quad (a+b)^2 = a^2 + 2ab + b^2$

PST $\quad 9r^2 - 24r + 16$ $\quad (a-b)^2 = a^2 - 2ab + b^2$

$$(3r-4)^2 = (3r-4)(3r-4)$$

(Ex) $\sqrt{9r^2 - 24r + 16} = (3r-4)$

DOS
Difference of Square
↑ minus ↑ "perfect"

(Ex) $x^2 - 16$

$(x - 4)(x + 4)$

CONJUGATES

$x^2 + 4x - 4x - 16$

$x^2 - 16$

DOS $a^2 - b^2 = (a+b)(a-b)$
or $(a-b)(a+b)$

(Ex) $\dfrac{x^2 - 1}{x+1} = \dfrac{(x+1)(x-1)}{(x+1)}$

$= x - 1$