BE-1B | TUESDAY 5-20-08

1. CONVERT TO SCIENTIFIC NOTATION:
   - A. 1,268,520,000,000
   - B. 0.000000052
2. CONVERT TO STANDARD NOTATION:
   - A. 5.8×10^{10}
   - B. 1.2×10^{-8}
3. $(4 \times 10^{8})(2 \times 10^{12}) = ?$
4. $(6 \times 10^{5})(5 \times 10^{7}) = ?$
5. $\dfrac{1.8 \times 10^{9}}{6 \times 10^{-12}} = ?$

QUADRATIC FUNCTION: $ax^2+bx+c=y$ (PARABOLA)

$+$ ↗↘ $-$

Vertex $\left(\frac{-b}{2a}, f\left(\frac{-b}{2a}\right)\right)$

x, y

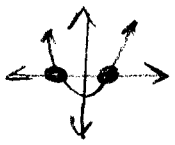
QUADRATIC EQUATION: $ax^2+bx+c=0$

($y=0$ which means the solutions ARE the x-intercepts)

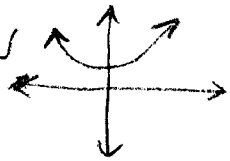
a, b, c

DISCRIMINANT $d=b^2-4ac$

d POSITIVE ⇒ 2 SOLUTIONS



d NEGATIVE ⇒ NO SOLUTIONS



QUADRATIC FORMULA:

$$x=\frac{-b\pm\sqrt{d}}{2a}$$

$$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$$

Ch. 10-4 Solving Quadratic Equations Using the Quadratic Formula

Ex) $2x^2 + 7x - 15 = 0$

Ch. 10-5 → 10-7 Exponential Functions including Growth/Decay/Compound Interest

Study Guide: Pg 577-578

Homework: Pg 577 # 29, 30, 35,
578 # 38, 42