What happend when. Zonk... (pg. 104)

(G) $n^3 + 8n^2 + 12n = 0$
$n(n^2 + 8n + 12) = 0$
$n(n + 6)(n + 2) = 0$
$\boxed{n = 0, -6; 2}$

(A) $8y^3 = 2y$
$8y^3 - 2y = 0$
$2y(4y^2 - 1) = 0$
$2y(2y + 1)(2y - 1) = 0$
$\boxed{y = 0, \pm\frac{1}{2}}$

(A) $m^3 - 16m = 0$
$m(m^2 - 16) = 0$
$m(m + 4)(m - 4) = 0$
$\boxed{m = 0, \pm 4}$

(H) $9t^2 + 2t = 5t^3$
$0 = 5t^3 - 9t^2 - 2t$
$0 = t(5t^2 - 9t - 2)$
$0 = t(5t + 1)(t - 2)$
$\boxed{t = 0, -\frac{1}{5}, 2}$

(D) $a^3 + 3a^2 = 10a$
$a^3 + 3a^2 - 10a = 0$
$a(a^2 + 3a - 10) = 0$
$a(a + 5)(a - 2) = 0$
$\boxed{a = 0, -5, 2}$

(G) $9k^3 + 30k^2 = 24k$
$9k^3 + 30k^2 - 24k = 0$
$k(9k^2 + 30k - 24) = 0$
$k(3k - 2)(3k + 12) = 0$
$\boxed{k = 0, \frac{2}{3}, -4}$

(E) $2d^3 + 6d = 7d^2$
$2d^3 - 7d^2 + 6d = 0$
$d(2d^2 - 7d + 6) = 0$
$d(2d - 3)(d - 2) = 0$
$\boxed{d = 0, \frac{3}{2}, 2}$

(T) $x^4 - 13x^2 + 36 = 0$
$(x^2 - 9)(x^2 - 4) = 0$
$\boxed{x = \pm 3, x = \pm 2}$

(O) $x^4 - 10x^2 + 9 = 0$
$(x^2 - 9)(x^2 - 1) = 0$
$(x + 3)(x - 3)(x + 1)(x - 1) = 0$
$\boxed{x = \pm 3, \pm 1}$

(H) $17v^2 + 5v = -6v^3$
$6v^3 + 17v^2 + 5v = 0$
$v(6v^2 + 17v + 5) = 0$
$v(3v + 1)(2v + 5) = 0$
$\boxed{v = 0, -\frac{1}{3}, -\frac{5}{2}}$

(I) $u^3 = 14u^2 + 32u$
$u^3 - 14u^2 - 32u = 0$
$u(u^2 - 14u - 32) = 0$
$u(u + 2)(u - 16) = 0 \rightarrow \boxed{u = 0, -2, 16}$

Ⓑ $5w^3 = 40w^2 - 80w$

$5w^3 - 40w^2 + 80w = 0$

$5w(w^2 - 8w + 16) = 0$

$5w(w - 4)(w - 4) = 0$

$\boxed{w = 0, 4}$

Ⓝ $30q^3 + 14q^2 - 4q = 0$

$2q(15q^2 + 7q - 2) = 0$

$2q(5q - 1)(3q + 2) = 0$

$\boxed{q = 0, \, 1/5, \, -2/3}$