1. Find the degree of each.

a) $6Q^2 - 9Q + Q^4 - 92$

4th Deg.

b) $48c^7d^8$

15th Deg.

Name each by a) Number of Terms then, b) Degree

2. $y = 489$

a) monomial

b) constant

3. $y = 4x^3 - 9x$

a) binomial

b) cubic

4. $y = 3c - 9$

a) binomial

c) linear

5. $23x^2 - 9x + 7$

a) trinomial

d) quadratic

Expand each.

6. $(R-9)(R+15)$

$R^2+15R-9R-135$

$R^2+6R-135$

7. $(3c+7)(2c^2+4c-3)$

$6c^3+26c^2+19c-21$

	$2c^2$	$4c$	-3
$3c$	$6c^3$	$12c^2$	$-9c$
7	$14c^2$	$28c$	-21

8. $(H-13)^2$

$(H-13)(H-13)$

$H^2-26H+169$

9. $(7k^2-8m)(7k^2+8m)$

$49k^4-64m^2$

Factor each completely.

10. $54g^5 - 384g^3$

$6g^3(9g^2 - 64)$

$6g^3(3g \pm 8)$

11. $12c^3 + 4c^2 - 75c - 25$

	$3c$	$+1$
$4c^2$	$12c^3$	$4c^2$
-25	$-75c$	-25

$(3c+1)(4c^2-25)$

$(3c+1)(2c \pm 5)$

12. $4a^3h^2 + 3a^3g - 8bh^2 - 6bg$

$4a^3h^2 + 3a^3g - 8bh^2 - 6bg$

$4h^2 + 3g \quad (a^3 - 2b)$

	$4h^2$	$+3g$
a^3	$4a^3h^2$	$3a^3g$
$-2b$	$-8bh^2$	$-6bg$

$(4h^2 + 3g)$

13. $24k^3 - 18k^2 - 15k$

$3k(2k+1)(4k-5)$

$3k(8k^2 - 6k - 5)$

$ac = -40$, $-10 + 4 = -6$, $-10 \cdot 4 = -40$

$2k + 1$

$4k - 5$

	$8k^2$	$4k$
$-10k$	$-10k$	-5