Algebra 1 Bellwork Friday, May 6, 2016

1. Find the degree of each.

a) $6Q^2 - 9Q + Q^4 - 92$ b) $48c^7d^8$

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

2. $y = 489$

a)

b)

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

a)

b)

4. $y = 3c - 9$

a)

c)

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

a)

d)

Expand each.

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

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

8. $(H - 13)^2$

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

Factor each completely.

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

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

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

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

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Answers

1. Find the degree of each.

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

b) $48c^7d^8$ (15)

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

$R^2 + 6R - 135$

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. $(H - 13)^2$

$H^2 - 26H + 169$

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

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

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

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

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

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

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

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

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

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

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

-40, -10, 4, -6

	$4k$	-5
$2k$	$8k^2$	$-10k$
$+1$	$+4k$	-5