

c) for  $\omega = 2/3$   $r = 1/2$   $s = -1$

$(2/3)(1/2) - (-1)$	$(-1)(1/2) - (2/3)$	$2(2/3)^2 - (1/2)^2$	$(2/3 - (-1))^2 + 8(1/2)$
$1/3 + 1$	$-1/2 - 2/3$	$2(4/9) - 1/4$	$(1 2/3)^2 + 4$
$1 1/3$	$-3/6 - 4/6$	$8/9 - 1/4$	$(5/3)^2 + 4$
	$-7/6 = -1 1/6$	$8 \cdot 4 / 9 \cdot 4 - 1 \cdot 9 / 4 \cdot 9$	$25 + 4 \cdot 9$
		$32 / 36 - 9 / 36$	$25 + 36$
		$23 / 36$	$61 / 9 = 6 7/9$

d) for  $m=3, n=2.5, t=-2$

$(-2)^{(-3)} - (2.5)(4(3) + (-2))$	$(3)^3 - (3)(2.5) - (-2)$	$(-2)(2.5) - (2.5)^{(-3)}$	$8 - 5(3)(2.5)(-2)$
$-8 - 2.5(12 - 2)$	$27 - 3(4.5)$	$-5 - 15.625$	$8 + 15(2.5)(-2)$
$-8 - 2.5(10)$	$27 - 13.5 = 13.5$	$-20.625$	$8 + 37.5(-2)$
$-8 - 25 = -33$			$8 + 75 = 83$

e) for  $m=-4, n=-1, t=-2$  use calculator  $x^y$  or 1 for these powers

$(-2)^{(-4)} - (-1)(4(-4) + (-2))$	$(-4)^3 - (-4)(-1) - (-2)$	$(-2)(-1) - (-1)^{(-4)}$	$8 - 5(-4)(-1)(-2)$
calc. $2 \square \square \square x^y \square 4 \square \square = .0625$	$-64 + 4(-1 + 2)$	$2 - 1$	$8 + 20(-1)(-2)$
$.0625 + 1(-16 + (-2))$	$-64 + 4(1)$	$1$	$8 - 20(-2)$
$.0625 + (-18)$	$-60$		$8 + 40$
$-17.9375$			$48$

f) for  $x=5, y=-2, z=-1$

$(5) - (-2)(3 - (-1))$	$(5)(-2)(-1) - (-2)^2$	$(5)(-2) + ((5)^2 + (-2)^2)$	$(-1) - (-2) - (5)$
$5 + 2(3 + 1)$	$5(-2)(1) - 4$	$-10 + (25 + 4)$	$-1 + 2 - 5$
$5 + 2(4) = 5 + 8 = 13$	$10 - 4 = 6$	$-10 + 29 = 19$	$-4$

g) for  $x=2, y=3, z=-5$

$(2) - (3)(3 - (-5))$	$(2)(3)(-5) - (3)^2$	$(2)(3) + ((2)^2 + (3)^2)$	$(-5) - (3) - (2)$
$2 - 3(8)$	$6(-5) - 9$	$6 + (4 + 9)$	$-8 - 2$
$2 - 24 = -22$	$-30 - 9 = -39$	$6 + 13 = 19$	$-10$