

2020 年度第 2 回 国際標準計算能力検定 レベル 9 模範解答

		配点				配点	
基礎 計算	1	20	0~3 問不正解				
		10	4~6 問不正解				
		0	7 問以上不正解				
1	(1)	2	$\sqrt{35}$	(2)	2	$\sqrt{5}$	
	(3)	2	$\sqrt{48}$	(4)	2	$9\sqrt{3}$	
	(5)	2	$4\sqrt{3}$				
2	(1)	2	$x^2 + 2xy + y^2 + 2x + 2y$	(2)	2	$x^2 + 7x + 12$	
	(3)	2	$x^2 + 18x + 81$				
3	(1)	2	$a(3x + 5y + 4z)$	(2)	2	$(x - 2)(x - 5)$	
	(3)	2	$(x + 9)(x - 9)$				
4	(1)	2	$x = \pm 5$	(2)	2	$x = \pm\sqrt{11}$	
	(3)	2	$x = \pm 2$	(4)	2	$x = \pm\sqrt{5}$	
	(5)	2	$x = 4 \pm \sqrt{7}$				

		配点				配点	
5	(1)	2	$7\sqrt{3}$	(2)	2	$2\sqrt{3}$	
	(3)	3	$\frac{\sqrt{5}}{7}$	(4)	3	$\frac{\sqrt{31}}{10}$	
	(5)	2	$\sqrt{6}$	(6)	3	$\frac{2\sqrt{3}}{3}$	
6	(1)	2	$8\sqrt{2}$	(2)	2	$3\sqrt{3}$	
	(3)	2	$\sqrt{2}$	(4)	2	$\sqrt{3}$	
	(5)	2	$5\sqrt{2} + 10$				
7	(1)	2	$9x^2 - 12x - 5$	(2)	2	$\frac{25}{49}x^2 - \frac{20}{21}xy + \frac{4}{9}y^2$	
	(3)	2	$16x^2 + 56xy + 49y^2$	(4)	2	$-9x^2 + 24x + 9$	
	(5)	2	$-\frac{4}{9}x^2 + 25$				

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	配点		配点			
8	(1)	2	$(x - 5y)(x - 6y)$	(2)	2	$(x - \frac{1}{4}y)^2$
	(3)	2	$(x + \frac{5}{7}y)(x - \frac{5}{7}y)$	(4)	2	$a(x + 3)(x + 6)$
	(5)	2	$a(b + 5)(b - 5)$			
9	(1)	2	$x = 0, x = -8$	(2)	2	$x = -\frac{3}{2}, x = \frac{5}{3}$
	(3)	3	$x = 0, x = -3$	(4)	3	$x = -5$
	(5)	3	$x = -5, x = 8$	(6)	3	$x = -4, x = 2$
10	(1)	3	$x = -1 \pm 2\sqrt{2}$	(2)	3	$x = \frac{-7 \pm \sqrt{41}}{4}$
	(3)	3	$x = 3 \pm \sqrt{14}$	(4)	3	$x = \frac{-2 \pm \sqrt{22}}{3}$
	(5)	3	$x = \frac{1}{2}, x = -\frac{2}{3}$			

	配点		配点			
11	(1)	4	4	(2)	4	$13 + 6\sqrt{2} + 4\sqrt{3} + 4\sqrt{6}$
	(3)	4	$41 + 10\sqrt{2}$	(4)	5	$3\sqrt{3} + 3\sqrt{7}$
12	(1)	4	$-3x$	(2)	4	$12x + 34$
	(3)	4	$a^2 + 2ab + b^2 + 6a + 6b + 9$			
13	(1)	5	$(a - 2)(a - 10)$	(2)	4	$(x + 5)(x + 8)$
	(3)	5	$(x + 5y - 3)(x - 5y - 3)$	(4)	4	1000
14	(1)	5	$x = 3, x = \frac{10}{3}$	(2)	5	$x = 1, x = 10$
	(3)	5	$x = 2$			
15	(1)	5	$x = 1, y = 2, z = 3$	(2)	5	$x = -2, y = -3, z = 4$