

平成 31 年度 工学部 A 方式 (2/3) 数学解答

問題番号	小問	解答記号	正解
1	(1)	$\boxed{1}$	3
	(2)	最小公倍数は $\boxed{2}$ $\boxed{3}$ $\boxed{4}$	最小公倍数は 500
		最大公約数は $\boxed{5}$ $\boxed{6}$	最大公約数は 25
	(3)	$\boxed{7}$ $\boxed{8}$	18
	(4)	$-\frac{\boxed{9} \boxed{10}}{\boxed{11}}$	$-\frac{\mathbf{59}}{\mathbf{9}}$
(5)	$\frac{\boxed{12}}{\boxed{13}}$	$\frac{\mathbf{9}}{\mathbf{2}}$	
2	(1)	$D(\boxed{14}, -\boxed{15}, -\boxed{16})$	$D(\mathbf{1}, -\mathbf{2}, -\mathbf{1})$
		$G(\boxed{17}, -\boxed{18}, \boxed{19})$	$G(\mathbf{2}, -\mathbf{1}, \mathbf{2})$
	(2)	$\vec{OD} \cdot \vec{OG} = \boxed{20}$	$\vec{OD} \cdot \vec{OG} = \mathbf{2}$
$ \vec{OD} = \sqrt{\boxed{21}}, \vec{OG} = \boxed{22}$		$ \vec{OD} = \sqrt{\mathbf{6}}, \vec{OG} = \mathbf{3}$	
(3)	$\cos \angle DOG = \frac{\sqrt{\boxed{23}}}{\boxed{24}}$	$\cos \angle DOG = \frac{\sqrt{\mathbf{6}}}{\mathbf{9}}$	
3	(1)	$b_1 = \boxed{25}, b_{n+1} = \boxed{26} b_n$	$b_1 = \mathbf{1}, b_{n+1} = \mathbf{2} b_n$
	(2)	$b_n = \boxed{27}^{n-1}, a_n \text{ は } \boxed{28} b_n$	$b_n = \mathbf{2}^{n-1}, a_n \text{ は } \mathbf{2}^{b_n}$
	(3)	$\boxed{29} \boxed{30} \boxed{31}$	155
4	(1)	$\sin \angle YBC = \frac{1}{3} \sqrt{\boxed{32}}$	$\sin \angle YBC = \frac{1}{3} \sqrt{\mathbf{3}}$
		$\cos \angle YBC = \frac{1}{3} \sqrt{\boxed{33}}$	$\cos \angle YBC = \frac{1}{3} \sqrt{\mathbf{6}}$
	(2)	$\frac{1}{\boxed{34} \boxed{35}} \sqrt{15} + \frac{1}{\boxed{36} \boxed{37}} \sqrt{30}$	$\frac{1}{\mathbf{15}} \sqrt{15} + \frac{1}{\mathbf{10}} \sqrt{30}$
(3)	$\boxed{38} \sqrt{15} + \boxed{39} \sqrt{30}$	$\mathbf{2} \sqrt{15} + \mathbf{3} \sqrt{30}$	
5	(1)	$\frac{\boxed{40}}{\boxed{41}}$	$\frac{\mathbf{1}}{\mathbf{3}}$
	(2)	$\frac{\boxed{42}}{\boxed{43} \boxed{44}}$	$\frac{\mathbf{7}}{\mathbf{12}}$
	(3)	$\frac{\boxed{45}}{\boxed{46}}$	$\frac{\mathbf{3}}{\mathbf{4}}$
6	(1)	$\boxed{47}$ と $\boxed{48}$	0 と 3
	(2)	$-\boxed{49} \leq a \leq \boxed{50}$	$-\mathbf{7} \leq a \leq \mathbf{2}$
$-\frac{\boxed{51}}{\boxed{52}} \leq x \leq \frac{\boxed{53}}{\boxed{54}}$		$-\frac{\mathbf{3}}{\mathbf{2}} \leq x \leq \frac{\mathbf{9}}{\mathbf{2}}$	