

## AB AND BC CALCULUS FREE-RESPONSE QUESTIONS BY TYPE

Exam Year	Type										
	1	2	3g	3a	4	5	6	7	8	9	10
	Rate	Motion	Graph		A-V	Table	Dif Eq	Misc	Vector	Polar	Series
1998 AB	5		3	2	1*	3	4*	6			
1998 BC	5		6	2	1*		4*				3
1999 AB		1	5	4	2	3		6			
1999 BC			5		2	3	6		1		4
2000 AB	4	2	2 3		1		6*	5			
2000 BC		2 4	2		1		6*	5	4		3 6
2001 AB		3	3	4 5	1	2	6	6	1		
2001 BC		3	3	4		2	5	5	1		6
2002 AB	2	3*	4		1	6		5			
2002 BC	2	3*	4		1		5		3		6
2003 AB	3	2	3 4	6	1	3		5			
2003 BC			4		1			5	2	3	6
2004 AB	1	3	5	3	2	3	6	4	3		
2004 BC	1				2	3	5	4	3		6
2005 AB	2	5	5		1	3 4	6				
2005 BC	2	5	5		1	3	4			2	6
2006 AB	2	4	3	6	1	4	5*				
2006 BC	2				1	4	5*		3		6
2007 AB	2	4	2	6	1	3 5	4				
2007 BC	2			4	1	5				3	6
2008 AB		4	4	6	1	2	5	3			
2008 BC		4	4	5	1	2 3	6				3 6
2009 AB	2 3	1	1 6		4	5					
2009 BC	2	1				5	4		3		6
2010 AB	1 3		3 5		4	2	6				
2010 BC	1				4	2	5		3		6
2011 AB		1	4	6	3*	2	5				
2011 BC			4		3*	2	5		1		6
2012 AB		6	3	4	2	1	5				
2012 BC			3			1 4	5 4		2		4 6
2013 AB	1	2	4		5	3	6				
2013 BC	1		4			3	5			2	6
2014 AB	1		3		2	4 5	6	4			
2014 BC	1		3		5	4				2	6
2015 AB	1		5		2	3	4	6			
2015 BC	1					3	4	5	2		6
	Rate	Motion	Graph		A-V	Table	Dif Eq	Misc	Vector	Polar	Series

\* Indicates these were not common questions.      3g = graph stem; 3a = analytic stem.

### AB AND BC MULTIPLE-CHOICE BY TYPE

Type	2013 AB	2013 BC	2014 AB	2014BC	2015 AB	2015 BC
1. Rate/Accumulation	81	13, 27, 81	12, 81, 85	81, 89	78	78,
2. Linear motion	8, 10, 80, 85	91	14, 27, 76, 85, 90	86, 88, 90,	26, 83,	
3. Graph analysis (Graph stem or analytic stem)	5, 8, 11, 19, 21, 24, 28, 76, 79, 80, 82, 84, 87, 88, 92	6, 13, 18, 20, 24, 76, 79, 84, 85, 91	5, 9, 11, 15, 19, 22, 24, 78, 82, 84, 86, 87, 88	5, 9, 19, 76, 80, 82, 88, 91	9, 14, 19, 20, 22, 23, 80, 82, 85, 86, 87, 88, 92	1, 14, 22, 26, 77, 80, 85, 87, 88, 92
4. Area /volume	89	78, 89	79, 89	16, 78, 79,	21, 81	81, 84
5. Table & Riemann Sum	15, 83, 86	77, 83, 86	12,, 80, 91, 92	12, 21, 86. 92	4, 27, 77, 79,	4, 86, 92
6. Diff Equation	25, 81, 90	7, 9, 21, 25, 81	18, 28	23, 77, 83,	8, 18, 24,	9, 13, 18, 24,
7. Other: Implicit, RR, families, roc, avg, theorems, et al.	18, 22, 77, 92	4, 21, 22, 28, 80, 85	21, 25,	13, 15, 84	12, 13, 16, 17, 28, 76, 90, 92	2, 5, 21, 27, 76, 82, 90, 91
8. Parametric		8, 28, 87		85		8, 17
9. Polar		88		16, 25		15,
10. Sequences and Series		3, 11, 15, 19, 23, 26, 82, 90		6, 10, 14, 17, 22, 24, 27, 87,		10, 16, 19, 20, 28, 79, 83, 89,
11. Limits & Continuity	1, 12, 84	12, 14, 77	5, 7, 10, 16, 20	3, 5, 7, 11,	5, 11, 15, 89	12, 25
12. Compute Derivative (Inverse)	2, 4, 7, 14, 15, 16, 17, 19, 20, 23	1, 4, 5, 17, 18, 28	2, 3, 13, 17, 20, 23, 25, 26, 92	2, 20, 26, 28, 80	2, 7, 10, 13, 25, 79,	2, 7, 17, 23, 25,
13. Compute Integral	3, 6, 13, 21, 23, 26, 27, 78, 91	2, 6, 10, 13, 16, 27, 92	1, 4, 6, 8, 77, 83	1, 4, 8, 18, 89, 92	1, 2, 6, 84, 91	3, 6, 11, 21, 86

Type	2003 AB	2003 BC	2008 AB	2008 BC	2012 AB	2012 BC
1. Rate/Accumulation	82, 84	80, 82, 87	81	77	8, 81, 89	8,
2. Linear motion	25, 76, 83, 91	87, 91	7, 82, 87	85, 87	6, 16, 28, 79, 83, 89	2, 89
3. Graph analysis (Graph stem or analytic stem)	3, 7, 10, 13, 15, 17, 19, 20, 21, 22, 24, 28, 77, 81, 87, 88, 89, 92	13, 18, 19, 76, 86, 88, 90	6, 9, 10, 11, 17, 18, 20, 21, 24, 25, 80, 84	6, 9, 21, 25, 76, 78, 80, 91, 92	2, 5, 15, 17, 21, 22, 24, 26, 76, 78, 80, 83, 82, 84, 85, 87	3, 11, 15, 12, 18, 21, 76, 78, 80, 81, 84, 88, 89
4. Area /volume	86	89	83	11, 83	10, 92,	87
5. Table & Riemann Sum	18, 85, 90	25, 79, 83, 85	10, 14, 85, 86, 90	8, 14, 22, 88, 90	8, 86, 91,	8, 81, 86
6. Diff Equation	12, 19	5, 12, 14, 21	22, 23, 27	7, 24, 27, 86	23, 25	14, 16, 23,
7. Other: Implicit, RR, families, roc, avg, theorems, et al.	78, 80	15, 78, 92	88, 89, 92	6, 10, 89	27, 77, 88	4, 7, 11, 12, 77, 82, 85, 92
8. Parametric		4, 7, 17, 84		1, 5, 28		2
9. Polar				26		26, 91
10. Sequences and Series		10, 11, 20, 22, 24, 28, 77		4, 12, 16, 20, 23, 79, 82, 84		5, 9, 13, 17, 22, 27, 79, 90,
11. Limits & Continuity	3, 6, 79	2, 81	1, 5, 19	3, 78	5, 9, 11, 21, 77	21, 25, 28, 83,
12. Compute Derivative ( <u>inverse</u> )	1, 4, 9, 14, 16, 23, 26, <u>27</u>	1, 9, 16, 27, 79	3, 8, 12, 13, 16, 18, 26, <u>28</u>	2, 10, 15, 17, 18, 90, 92	1, 4, 7, 14, 18, 19, <u>20</u> , 78	1, 7, 17, 19
13. Compute Integral	2, 5, 8, 11, 22	3, 6, 8, 23, 26	2, 4, 15, 79, 81, 85, 91	13, 19, 22, 81	3, 12, 13, 17, 90	3, 6, 10, 16, 18, 20, 24, 25

Note: Some questions listed under more than one type.

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