

CHECKPOINT 1				CHECKPOINT 2				CHECKPOINT 3			
1	$2\sqrt{10}$	$\sqrt{15}$	5	1	$2\sqrt{15}$	$2\sqrt{5}$	$\sqrt{30}$	1	$\sqrt{6}$	$3\sqrt{2}$	$\sqrt{21}$
	$2\sqrt{6}$	3	$\sqrt{15}$		$\sqrt{30}$	$\sqrt{10}$	$\sqrt{15}$		$\sqrt{10}$	$\sqrt{30}$	$\sqrt{35}$
	12	$3\sqrt{6}$	$3\sqrt{10}$		12	$2\sqrt{6}$	6		$2\sqrt{7}$	$2\sqrt{21}$	$7\sqrt{2}$
2	$3\sqrt{5}/5$			2	$5\sqrt{7}/7$			2	$2\sqrt{3}/3$		
3	125	115		3	36.5	35.5		3	165	155	
4	809 000	720 000 0000	0.0075	4	26000	72	0.015	4	80 300 000	0.24	0.008
5	3			5	5			5	6		
6	$32/99$			6	$2/11$			6	$26/99$		
7	(1,5)	(-2,2, -4.6)		7	-2,3	1.5,-0.5		7	(3,7)	(1.8, 3.4)	
8	$m_1=2$	$m_2=-0.5$		8	$m_1=2$	$m_2=-0.5$		8	$m_1=-3$	$m_2=1/3$	
9	-2 or 0.5	1.5 or -1.5		9	-5/3,7	0.8,-0.8		9	-0.5 or 3	$2/3$ or $-2/3$	
10	$14\sqrt{3}/3$			10	$16\sqrt{3}/3$			10	$6\sqrt{3}$		
11	0.3	30	4	11	2.5	28	1.5	11	0.4	40	3
12	0.47178			12	0.83692			12	0.83692		

**CHECKPOINT 4**

1	$2\sqrt{21}$	$2\sqrt{15}$	6
	$\sqrt{42}$	$\sqrt{30}$	$3\sqrt{2}$
	$2\sqrt{14}$	$2\sqrt{10}$	$2\sqrt{6}$
2	$\sqrt{5}$		
3	1250	1150	
4	90 020 000	3 500	0.0075
5	9		
6	$37/99$		
7	(4,5)	(-0.2, -7.6)	
8	$m_1 = -2$	$m_2 = 1/2$	
9	-1 or $2/3$	$4/5$ or $-4/5$	
10	$8\sqrt{3}$		
11	0.7	120	12
12	0.0272		

**CHECKPOINT 5**

1	$5\sqrt{2}$	$\sqrt{30}$	$5\sqrt{3}$
	$2\sqrt{15}$	6	$3\sqrt{10}$
	$\sqrt{30}$	$3\sqrt{2}$	$3\sqrt{5}$
2	$3\sqrt{7}$		
3	15500	14500	
4	760 000	5 400	0.004
5	12		
6	$216/999 = 8/37$		
7	(2,7)	(-2.6, -6.8)	
8	$m_1 = -3$	$m_2 = 1/3$	
9	-3 or $1/5$	$7/3$ or $-7/3$	
10	$2\sqrt{3}$		
11	0.3	28	5
12	0.579825		

**CHECKPOINT 6**

1	$\sqrt{30}$	$\sqrt{42}$	$\sqrt{66}$
	$2\sqrt{15}$	$2\sqrt{21}$	$2\sqrt{33}$
	10	$2\sqrt{35}$	$2\sqrt{55}$
2	$\sqrt{11/2}$		
3	2.45	2.35	
4	9 700 000	2.4	0.00025
5	15		
6	$325/999$		
7	(8,1)	(4, -7)	
8	$m_1 = -5$	$m_2 = 1/5$	
9	2 or $3/7$	1.8 or -1.8	
10	$4\sqrt{3}$		
11	0.4	68	7
12	0.31744		