

## Math 252: Recommended Problems for Exercise Set

The associated exercise set is available via D2L.

The following exercises are not to be handed in for marking. Instead, you are encouraged to work on these selected exercises as part of your studying for the course.

Section	Exercises
1.1	1, 3, 5, 7, 9, 11, 13, 17, 29, 31, and think about 41
1.2	1, 3, 9, 11
2.2	5, 7, 9, 11, 13, 15, 17, 21, 23, 25
2.3	5, 7, 9, 11, 13, 17, 19, 21, 23, 29, 33 note: omit interval of solution for 17, 19 and 33 (19 has a hint for the integration on the website)
2.4	3, 5, 7, 9, 11, 15, 21, 23, 25, 27, 31, 33, 35, 37
2.5	1, 5, 7, 9, 11, 13, 17, 19, 23, 25, 27
3.1	3, 9, 11, 13, 16 (answer: 9.02 min), 19, 21, 27, 35
4.2	3, 7, 9, 11, 13, 15
4.3	3, 5, 7, 9, 11, 13, 15, 21, 23, 29, 31, 35, 43, 45, 47 see answers below for 43, 45 and 47
4.4	5, 7, 9, 13, 19, 21, 27, 29, 31, 45 a) and d) see answers below for 45 a) and d)
4.6	3, 5, 11, 13, 15, 17, 21 (11 and 13 have hints for the integration on the website if you want to try them)
4.7	1, 3, 5, 7, 9, 11, 13, 19, 21, 23, 25, 27, 29
5.1	11, 17, 19, 21, 31, 33
6.1	27, 29 (skill-builder)
6.2	9, 11, 13, 15, 19, 21, 23 Just find the first few coefficients; don't give answers in sigma notation.
	Chapters 7 and 8 coming soon!

Selected answers:

- Sec 4.3: 43 a), f) because they have at least one exponential growth term  
 45 e) because it has a decaying sine wave  
 47 d) because it is a sine wave with period  $2\pi$
- Sec 4.4: 45 a) (v) because curve is  $y = \text{sine curve} + e^x \sin x$  curve  
 45 d) (i) because curve is  $y = \text{constant} - \text{cosine curve}$