

Assignment for Thursday, 1/18

- I Exercises from book:
Section 1.2 \rightarrow 3acde, 6
Section 2.2 \rightarrow 3abc, 4, 5

II Supplementary Exercises:

④ Prove that if a and b are odd integers, then $a^2 - b^2$ is divisible by 8.

⑤ Prove that $(1+\sqrt{2})^{2n} + (1-\sqrt{2})^{2n}$ is an even integer and that $(1+\sqrt{2})^{2n} - (1-\sqrt{2})^{2n} = b\sqrt{2}$ for some positive integer b , for all integers $n \geq 1$.