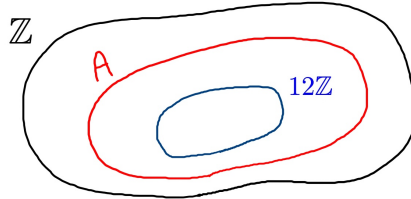


Day 36: Maximal Ideals

1. Whiteboard page 1.
 2. Whiteboard page 2.
 - On a (non-virtual) whiteboard, draw the figure below to introduce question (b).
- Note:** This figure will be useful throughout the lesson.



3. Whiteboard page 3.
 - Observe that $4\mathbb{Z}$ is *strictly* between $12\mathbb{Z}$ and \mathbb{Z} .
 - Draw in ideal $4\mathbb{Z}$ in the figure. Label with elements 8 (in $4\mathbb{Z} - 12\mathbb{Z}$), 1 (in $\mathbb{Z} - 4\mathbb{Z}$), etc.
4. **Work on Day 36 Class Work. Leave 10 – 15 minutes for discussions.**
5. Whiteboard pages 4 through 6.
 - **Page 4:** Draw in ideal A in the figure.
6. **Proof (Outline) of the Day:** Whiteboard page 7.