

Lecture 1

Video 5

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Fill in the chart below:

Exercise

Ring

Commutative?

Set of
units?Integral
domain?

PID?

ED?

Division
Ring?Optional
↓(a) \mathbb{Z} (b) \mathbb{Z}_n (c) \mathbb{Q} (d) \mathbb{R} (e) \mathbb{C} Optional
→(f) \mathbb{H} (g) $\text{Mat}_n(R)$ Matrix ring
over a ring R (h) $R[x_1, \dots, x_n]$ Polynomial
ring over a
ring R