

## Warmup!

Let  $A = \mathbb{Z}$ , let  $S = \{2\}^* = \{1, 2, 2^2, \dots\}$ , and consider  $A \rightarrow S^{-1}A : a \mapsto a/1$ .

(1) If  $I = (6) \triangleleft \mathbb{Z}$ , then what is  $I^{ec} = (S^{-1}(6))|_{\mathbb{Z}} = \text{sat}(I)$ ?

(2) Describe the ideal lattice of  $S^{-1}A$ .

(3) Interpret the answer to (2) as a statement about  $\text{Spec}(A)$  versus  $\text{Spec}(S^{-1}A)$ .