

**474 Instructor Notes from Day 15 slides:**

Slide 15: Using the Closure Properties

Answer:  $a^*b^*$

Slide 17:  $L = \{a^i b^j : i, j \geq 0 \text{ and } i \neq j\}$

*If  $\neg L$  were regular, then the intersection of  $\neg L$  and  $a^*b^*$  would be regular. In a previous slide, we showed that it is not regular.*