Makeup Homework Module 5 | sec 3.1: 7, 9a, 9c

7. Find a regular expression for the set
$\{a^n b^m : n \geq 3, m \text{ is odd}\}$

$$r = aaa(a)^* b(bb)^*$$

9. Give regular expressions for the following languages.

a) $L_1 = \{a^n b^m : n \geq 3, m \leq 4\}$

$$r = aaa(a)^*(\lambda + b + bb + bbb + bbbb)$$

c) The compliment of L_1

$\overline{L_1} = \{a^n b^m : n < 3, m > 4\}$

$$r = (\lambda + a + aa)\,bbbbb(b)^*$$