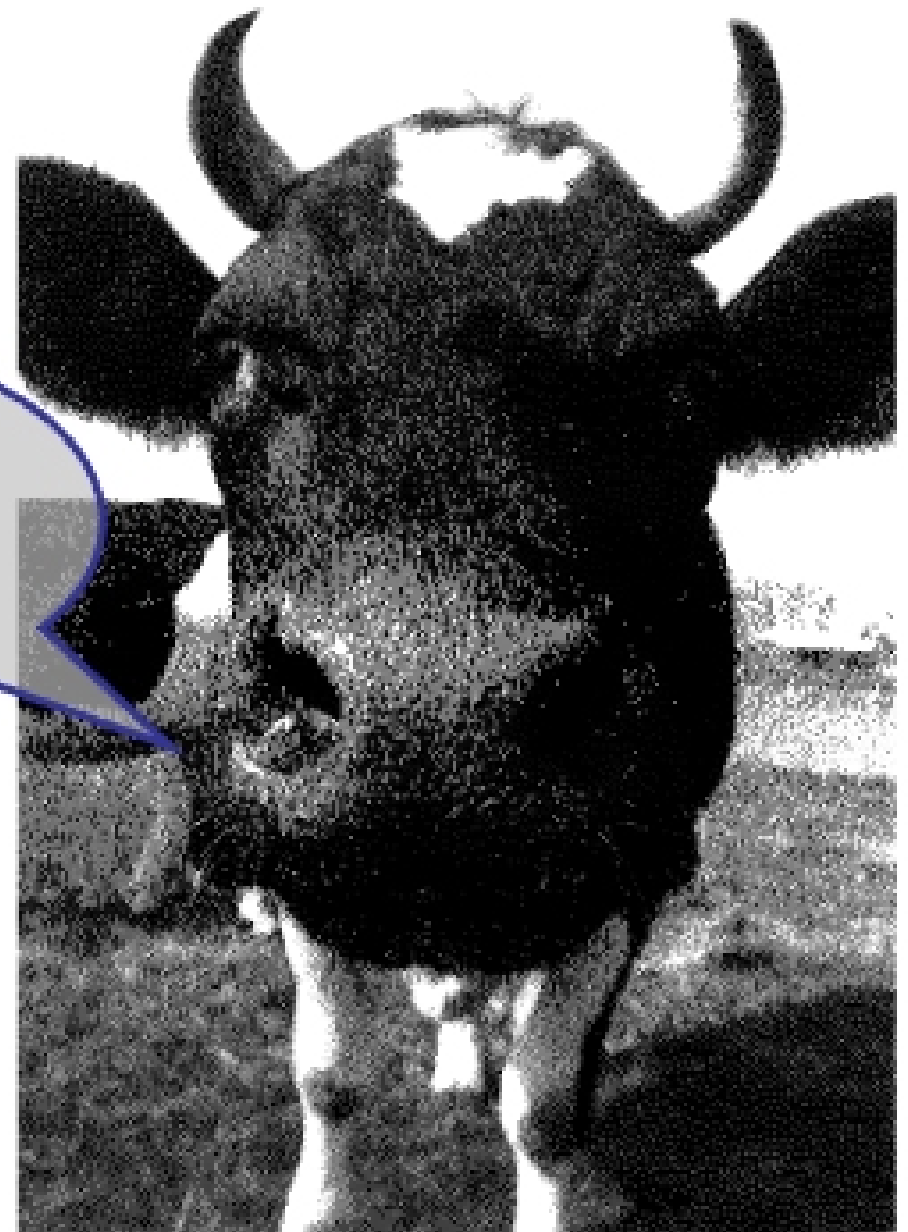


Lecture 2: Formal Systems and Languages

MU!



CS200: Computer Science
University of Virginia
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Menu

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If it takes 60 seconds to compute a photomosaic for Problem Set 1 today on a typical PC, estimate how long it will take CS200 students in 2007 to compute the same photomosaic? How long will it take in 2010?

> (/ (* (- 2007 2004) 12) 18)

2

> (/ 60 (* 2 2))

15

> (/ (* (- 2010 2004) 12) 18)

4

> (/ 60 (* 2 2 2 2))

15/4

> (exact->inexact (/ 60 (* 2 2 2

2)))

3.75

Difference in years * 12 = number of months
Number of months / 18 = number of doublings
according to Moore's Law

60 seconds today, 2 doublings by 2007
15 seconds in 2007

60 seconds today, 4 doublings by 2010
3.75 seconds in 2010