7:45 Put warm-ups on the board:

1. Turn in homework, take 3^2-2^3 donuts
2. Is this bigger than 1? Or smaller than 1? 2/(2+2/(2+2/(2+2))))
3. What is it?
4. What are the prime factors of 64? *A: 2^6*
5. What is 440/3? *A: 146 2/3 not 147!*
6. What's the total number of babies in 2 sets of triplets, 2 sets of quadruplets and 2 sets of quintuplets? *A: (2x3)+(2x4)+(2x5) = 24 or 2x(3+5+4) = 24*
7. Q: If two is company, and three is a crowd, then what's four and five?
   A: Nine

8:10 Circulate roster
Discuss warm-ups

8:20 Discuss top 3 homework problems

Prob 2g) $\dfrac{2}{2+\dfrac{2}{(2+2)}} =$

Prob 4j) Toothpick problem okay?

8:35 Lecture

Joke (story related to math, followed by pun): What did they call the 7' NBA basketball player legend of 1969-89 Kareem Abdul Jabbar? "ul jabbar" (*sounds like algebra)*

Joke: Do you know what happened to him? He had a long career, but planned ahead. In case of disability, they took samples of his genes and created a perfect clone. To keep it safe and preserved, they also perfected cryogenics and kept the copy at absolute zero until they needed it. Hence he became known as the first "iced Kareem clone".

Keep track of properties (rules) we use in one corner of the board, such as…

Properties

Reflexive property: if a=b and b=c then a=c
Commutative property: a*b = b*a, and a+b = b+a
Distributive property: a*(b+c) = a*b + a*c

Do *lots* of examples! This can include things like this…

One Step Problems

x + 7 = 10
3 – x = 15
4x = 24
5/x = 15
x/a = 10

Two Step Problems

2x + 1 = 7

$x/2 - 3 = 5$
$5 - 3x = 14$
$1/x + 2 = 12$
$4 - 3/x = -2$
$5(x-1) = 25$

More operations

$2(x-1)^2 + 3 = 21$
$5x + 2 = x-3$
$14x^2 - 7x = 0$
$(x - 1)^3 = 27$

Hand outs

8:55 Mental Math Contest (*if time permits!)*
9:10 Done – do not release kids before 9:10, since they're not supposed to be on campus before then.