Week 1 MATH 34B TA: Jerry Luo jerryluo8@math.ucsb.edu Website: math.ucsb.edu/~jerryluo8 Office Hours: Wednesdays 2-3PM, South Hall 6431X; Math Lab hours: Wednesday 3-5PM, South Hall 1607

1.5 Solve for $x: \frac{x+4}{8x-1} = \frac{x+8}{8x-7}$

1.10 What is the equation of the line going through the two points (2, 8) and (3, 2)?

1.12 The perimeter of a rectangle is 26cm. If the area of the rectangle is $40cm^2$ find the length and width of the rectangle (assume length is smaller than the width).

2.2 Solve for *a*: $\int_{1}^{a} 2dx = 12$.

2.8 Maximize: $f(x) = 1 + 4x - x^2$.

2.9 Where is $f(x) = x^2 - 5x$ increasing?

2.10 Find the second derivative of $8x^3 + 2x$.

2.13 The total number of people at a football game was 5600. Field-side tickets were 40 dollars and end-zone tickets were 20 dollars. If the total amount of money received for the tickets was 186000 how many of each kind of ticket were sold.