Review of integrals

U substitution	1. define u 2.write derivative of u 3. simplify to cancle 4. sub in 5. integrate
Integration	1. add 1 to exponent of x and multiple by reciprocal of exponent
cos	sin
sin	-cos
sec^2	tan
sectan	sec
csc^2	-cot
csccot	-csc
e^x	e^x
b^x	b^x/lnb
1/x	lnlxl

Trapezoid sums

Area of a trapezoid	A=1/2 (b1+b2)h
1.	divide top #- bottom # by number of subintervals
2.	Create numberline, plug in numbers
3.	Plug into area equation, bases are numbers on numberline and height is the distance between them
4.	Add all subintervals together
Underestimate	some left out, double derivative is negative, so concave down
Overestimate	Concave up

Definite Integrals

1. find antiderivative (integrate function and dake away dx, line with top and bottom values
2. Plug in upper value to integrated expression
3. Plug in lower value to integrated expression
4. Subtract lower value from upper value

Midpoint Riemann Sums

1. divide top #- bottom # by number of subintervals
2. numberline
3. find middle of each of the points
4. Plug in each midpoint to given equation
5. add midpoints together

DrawRect calculator program

1. enter equation into y= section
2. set appropriate window, program button, enter
3. partion= number of subintervals
4. select method

Left and Right Riemann sums

Left	left value is plugged into equation
Right	right value is plugged into equation

Definite Integrals with U-substitution

1. Identify u and solve for derivative
2. Plug in top and bottom number to original u equation and replace in integral
3. Rewrite integral
4. Integrate
5. Plug in new top value to integrated expression
6. Plug in new bottom value to integrated expression
7. Subtract top expression from bottom expression

Sigma Notation

1. Pick a number to be your n (ex.4)
2. Divide top #- bottom # by n
3. number line from bottom number to top with divided distance
4. plug in intervals to equation (right left or mid) and multiply by distance
5. Add interval equation values together
6. Equation answer is sigma n on top k=1 on bottom, given equation with first interval +distance times k inside