%%% This file has been annotated. All annotations begin with "%%%".

%%% Jacob Steckel

%%% Dr. Wyatt

%%% CSC345

%%% 29 October 2018

%%% runs.txt

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '1 'X) %%% Test 1

X

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '1 'Y 1 4) %%% Test 2

3

%%% ----------------------------------------------------------------------------------

> (INTEGRATE 'Z 'Z) %%% Test 3

(/ (EXPT Z 2) 2)

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(+ X 0) 'X) %%% Test 4

(/ (EXPT X 2) 2)

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(- X) 'X 1 3) %%% Test 5

-4

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(- - X) 'X 1 4) %%% Test 6

15/2

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(- X) 'X) %%% Test 7

(- (/ (EXPT X 2) 2))

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(- - X) 'X) %%% Test 8

(/ (EXPT X 2) 2)

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(- - - X) 'X) %%% Test 9

(- (/ (EXPT X 2) 2))

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(+ X (- X)) 'X) %%% Test 10

0

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(- (+ (- - X) X)) 'X 1 4) %%% Test 11

-15

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(+ (+ (- - X) (+ X 3)) 2) 'X 2 6) %%% Test 12

52

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(- X (EXPT X 3)) 'X) %%% Test 13

(- (/ (EXPT X 2) 2) (/ (EXPT X 4) 4))

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(- X (EXPT X 3)) 'X 2 5) %%% Test 14

-567/4

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(+ (+ X (- - - X)) (EXPT X 3)) 'X) %%% Test 15

(/ (EXPT X 4) 4)

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(+ (- X (- X)) (EXPT X 3)) 'X 2 3) %%% Test 16

65/4

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(EXPT X -1) 'X) %%% Test 17

(LOG X)

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(EXPT X -1) 'X 3 45) %%% Test 18

2.7080503

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(+ (+ X (- 5 X)) (EXPT X -1)) 'X) %%% Test 19

(+ (+ (/ (EXPT X 2) 2) (- (\* 5 X) (/ (EXPT X 2) 2))) (LOG X))

%%% ----------------------------------------------------------------------------------

> (INTEGRATE '(+ (+ X (- 5 X)) (EXPT X -1)) 'X 5 217) %%% Test 20

1063.7704