Tiffany Pan

Chapter 6 homework

P 237-242: 6.7a-f, 10, 12, 29

6.7: What is the value of x after each of the following statements is executed?

a. x=Math.abs(7.5);

x= 7.5

b. x = Math.floor(7.5);

x = 7

c. x = Math.abs(0.0);

x = 0

d. x = Math.ceil(0.0);

x = 0

e. x = Math.abs(-6.4);

x = 6.4

f. x = Math.ceil(-6.4);

x = -6

g. x = Math.ceil(-Math.abs(-8 + Math.floor(-5.5)));

x=-14

6.10: (Rounding numbers) to round numbers to specific decimal places, use a statement like y = Math.floor(x \* 10 + 0.5)/10; which rounds x to the tenths position (the first position to the right of the decimal point), or y = Math.floor(x \*100 + 0.5)/100; which rounds x to the hundredths position. Write an application that defines 4 methods for rounding a number x in various ways: roundToInteger(number), roundToTenths(number), roundToHundredths(number), roundToThousandths(number). For each value read, your program should display the original value, the number rounded the nearest int, nearest tenth, nearest hundredth, and nearest thousandth.

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6.12: write statements that assign random integers to the variable n in the following ranges:

a. 1 <= n <= 2

n = Math.rand() + 1;

b. 1 <= n <= 100

n = 99 \* Math.rand() + 1;

c. 0 <= n <=9

n = 99\* Math.rand();

d. 1000 <= n <= 1112

n = 112 \* Math.rand() + 1000;

e. -1 <= n <= 1

n = 2\* Math.rand() -2;

f. -3 <= n <= 11

n = 14 \* Math.rand() -3;

6.29: (coin tossing) write an app that simulates coin tossing. Let the program toss a coin each time the user chooses the “Toss Coin” menu option. Count the number of times each side of the coin appears. Display the results. The program should call a separate method flip that takes no arguments and returns a value from a Coin enum (HEADS and TAILS). (note: if the program realistically simulates coin tossing, each side of the coin should appear approx. half the time.)

SEE FILE: TiffanyPan\_prob6\_29