CS 1324 Spring 2021 Homework 2 Arithmetic Operators

Jordan McFadden

TOTAL POINTS

14 / 20

QUESTION 1

Question 1_{10 pts}

1.1 1a 1 / 1

√ - 0 pts Correct

- 0 pts Arithmetic error
- 1 pts Result is of the incorrect type
- 1 pts Precedence error
- 1 pts Not answered
- 1 pts Late submission

1.2 1b 1/1

√ - 0 pts Correct

- 1 pts Incorrect
- 0 pts Sign incorrect, should have been -2.2
- 1 pts Not answered
- 1 pts Late submission

1.3 1c 1/1

√ - 0 pts Correct

- 1 pts Incorrect
- 1 pts Not answered
- 1 pts Late submission

1.4 1d 1/1

√ - 0 pts Correct

- 1 pts Incorrect
- 1 pts Not answered
- 1 pts Late submission

1.5 1e 1/1

√ - 0 pts Correct

- 1 pts Incorrect
- 1 pts Not answered
- 1 pts Late submission

1.6 **1**f 1 / 1

- 0 pts Correct
- √ 0 pts Incorrect data type
 - 1 pts Incorrect
 - 1 pts Not answered
 - 1 pts Late submission
 - Should be written as "94". It's a string not int.

1.7 **1**g **0** / **1**

- 0 pts Correct
- √ 1 pts Incorrect
 - 1 pts Late submission
 - 1 pts Not answered
 - Illegal operation

1.8 1h 0 / 1

- 0 pts Correct
- √ 1 pts Incorrect
 - 1 pts Not answered
 - 0 pts Incorrect data type
 - 1 pts Late submission
 - 2/3 is evaluated first, result is 0 (truncated as both 2 and 3 are int). Then 0*4 is 0. Finally, 3.0+0 is evaluated to 3.0.

1.9 1i 0 / 1

- 0 pts Correct
- √ 1 pts Incorrect
 - 1 pts Not answered
 - 1 pts Late submission
 - 2.0*2 is evaluated first, result is 4.0 (2 is promoted to 2.0 as the first one (2.0) is a double). Then 4.0/3 is 1.333. Finally, 1.333+4 is evaluated to 5.333

1.10 1j 0 / 1

- 0 pts Correct
- √ 1 pts Incorrect
 - 1 pts Not answered
 - 1 pts Late submission
 - If 43 is divided by 7, the remainder is 1. So the result of 43%7 is 1

QUESTION 2

Question 2 10 pts

2.12a 2/2

- √ 0 pts Correct
 - 0 pts Calculation off
 - 1 pts Result being of incorrect type
 - 1 pts Precedence error
 - 2 pts Not answered
 - 2 pts Late submission

2.2 2b 0/2

- 0 pts Correct
- 0 pts Calculation off
- 1 pts Result being of incorrect type
- 1 pts Precedence error
- √ 2 pts Not answered/ Incorrect
 - 2 pts Late submission
 - 1 pts Partial
 - See the following:
 - = (int) 1.5 / 7
 - = 1 / 7
 - = 0
 - = 0.0 (because it is assigned to a double)

2.3 2c 2/2

- √ 0 pts Correct
 - 0 pts Calculation off
 - 1 pts Result being of incorrect type
 - 1 pts Precedence error
 - 2 pts Not answered/ Incorrect
 - 2 pts Late submission
 - 1 pts Partial

- = 1.5 * 3.0
- = 4.5
- 4.5 cannot be assigned to an int (without a cast).
- This is illegal

2.4 2d 2/2

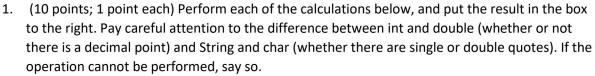
- √ 0 pts Correct
 - 1 pts Result is of incorrect data type
 - 2 pts Incorrect/ Not answered
 - 1 pts Partial
 - 2 pts Late submission
 - See the steps below:
 - = 7 + 18 + 3.0 / 3.0
 - = 7 + 18 + 1.0
 - = 25 + 1.0
 - = 25.0 + 1.0
 - = 26.0

2.5 2e 2/2

- √ 0 pts Correct
 - 1 pts Partial
 - 2 pts Incorrect/ Not answered
 - 2 pts Late submission

Homework 2: Arithmetic Operators

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a. 4+7	11
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2. (10 points; 2 points each) Assuming that the declarations below were made before each part, find the value of result for each expression below. If the expression is not legal in Java, say so. Pay attention to the difference between int and double and String and char. Pay attention to whether the assignment statement is legal. Show your work in the box to obtain partial credit. Decimals should be shown to three significant digits.

```
int dog = 7;
double canine = 1.5;
int cat = 18;
double feline = 3.0;
```

a. double result = dog + cat * canine;

```
result = 7 + 18 *1.5;
result = 7 + 27.0;
double result = 34.0;
```

b. double result = (int) canine / dog;

```
result = (int) 1.5/7
result = 0.21(int)
double result = 0
not legal
```

c. int result = canine * feline;

```
result = 1.5 * 3.0
int result = 4.5
not legal
```

d. double result = dog + cat + feline / 3.0;

```
result = 7 + 18 + 3.0/3.0
result = 25 + 1.0
double result = 26.0
```

e. double result = cat * feline / dog * canine;

```
result = 18 * 3.0/7 * 1.5

result = 54.0/7 * 1.5

result = 7.7142 * 1.5

double result = 11.5714
```