# Worksheet 02: Python Basic Arithmetic

Name: _____ Date: _____

## Instructions

- Answer in the blanks.
- For “write code” questions, write valid Python code.
- For “what does it print” questions, write the exact output.

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## Part A — Review: `int` and `float`

### 1) `int` or `float`?

Look at the code:

```
a = 3
b = 3.0
c = -0.25
```

Fill in:

- `type(a)` is _____
- `type(b)` is _____
- `type(c)` is _____

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## Part B — Addition `+` and Subtraction `-`

### 2) Write code: add and subtract

Write Python code to create:

- `x` with value `12`
- `y` with value `5`

Then print:

1. `x + y`
2. `x - y`

```
```

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## 3) What does it print? (two lines)

```
x = 10
y = 4

print(x - y)
print(x + y - 3)
```

Output:

```
```

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## 4) Word problem: game points

You start with `20` points.

- You lose `7` points.
- Then you win `5` points.

Fill in:

- Points after losing `7` : _____
- Final points after winning `5` : _____

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# Part C — Multiplication `*`

## 5) What does it print?

```
stickers_per_page = 6
pages = 4

total_stickers = stickers_per_page * pages
print(total_stickers)
```

Output:

```

```

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## 6) Write code: minutes to seconds

There are `60` seconds in `1` minute.

Write code to compute how many seconds are in `7` minutes. Use variables `minutes` and `seconds`.

```

```

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# Part D — Division: `/` and `//`

## 7) True division `/` (always a float)

What does this print?

```
print(9 / 3)
print(7 / 2)
print(1 / 4)
```

Output:

```

```

## 8) Floor division `//` (whole number part only)

What does this print?

```
print(9 // 3)
print(7 // 2)
print(1 // 4)
```

Output:

```

```

## 9) True vs floor division

What is the output?

```
print(9 / 2)
print(9 // 2)
```

Output:

```

```

# Part E — Remainder `%` (Modulo)

### 10) What does it print?

```
print(10 % 3)
print(12 % 5)
print(14 % 7)
```

Output:

```

```

### 11) Even or odd?

A number is:

- **even** if `number % 2` is `0`
- **odd** if `number % 2` is `1`

Fill in:

- `14 % 2` is _____ → even / odd (circle one)
- `17 % 2` is _____ → even / odd (circle one)

# Part F — Sharing with `//` and `%`

### 12) Sharing marbles

You have `23` marbles and `4` friends.

Write a Python program to print:

1. How many marbles each friend gets (same number for everyone)
2. How many marbles are left over

# Part G — Operator precedence (order of operations)

### 13) What does it print?

```
print(5 + 8 // 3)
print((5 + 8) // 3)
```

Output:

### 14) Precedence with `*` and `%`

What does it print?

```
print(10 % 4 + 3 * 2)
print((10 % 4 + 3) * 2)
```

Output:

# Part H — Type conversion: `int()` and `float()`

### 15) What does it print?

```
a = 3.9
b = int(a)

c = 5
d = float(c)

print(b)
print(d)
```

Output:

```

```

# Part I — Mini coding task (challenge)

### 16) Build a tiny “calculator”

Create:

- `a = 17`
- `b = 5`

Then print (in this exact order):

1. `a + b`
2. `a - b`
3. `a * b`
4. `a / b`
5. `a // b`
6. `a % b`

Write your code: