ANSWER KEY

Answer Key: Day 1

Every page for this day is keyed, and nothing is left as "answers will vary." This file covers the bell ringer, the guided notes and the exit ticket. In this folder, the key for the Operator Relay sheet is in Activity_and_Lab_Keys.pdf.

Bell Ringer: The Trick Board

```
1  score = 2
2  for trick in range(3):
3      score += 3
4  print(score)
```

Look for

- Question 1: 11.
- Question 2: 5, because the first pass adds 3 to 2.

Model response

The loop adds 3 three times, so `score` goes from 2 to 5, then 8, then 11. The program prints 11.

Guided Notes: Day 1

Blanks are shown filled in, in order.

Update operators

```
coins = 20
coins //= 3
coins *= 4
coins %= 5
coins **= 2
coins /= 2
print(coins)
```

Output

```
8.0
```

An **update operator** changes a variable using its old value. `coins //= 3` is short for `coins = coins // 3`.

`*=` multiplies, `/=` divides and `//=` divides and rounds down to a whole number. `%=` keeps the remainder, and `**=` raises to a power.

`/=` always gives a decimal, like 8.0.

The order of math

```
print(2 ** 3 ** 2)
print(-2 ** 2)
```

Output

```
512
-4
```

`**` works right to left. In `2 ** 3 ** 2`, Python works out `3 ** 2` first.

A **unary minus** is a minus sign in front of one value. `**` goes first, so `-2 ** 2` is -4.

Read the Error panel

```
1  score = 8
2  score *= 3
3  print(scor)
```

Error

Line 3: Python says: `NameError: name 'scor' is not defined`

Each line has a **line number** at its left. The Error panel names the line where Python stopped.

A `NameError` often means a name is spelled wrong.

Editor tools

```
1  laps = 0
2  # laps = 50
3  for run in range(4):
4      laps += 2
5  print(laps)
```

Output

```
8
```

To **comment out** a line, type # in front of it. Python skips the line until you delete the #.

With **auto-indent**, pressing Enter after a colon starts the next line 4 spaces in.

The **suggestion list** shows words as you type. Pick one with Tab or Enter, or tap it.

Exit Ticket

The exit ticket is worth 2 points: 1 for each item.

1. Correct: (B)

```
x = 7
x //= 2
x **= 2
print(x)
```

Output

```
9
```

`x` `//=` `2` *rounds down to a whole number, so* `x` *holds 3. Then* `x` `**=` `2` *makes it 3 times 3, which is 9.*

Item 2: written answer

Look for

- `//=` divides and rounds down to a whole number, so 7 divided by 2 gives 3.

Model response

`//=` divides by 2 and rounds down to a whole number, so 3.5 becomes 3.