Which of the following is a Boolean expression?

The New York Yankees are the classiest baseball team.

My name is Angelo.

Three is the most elegant number.

This quiz is very hard.

Which of the following is a Boolean expression?

The New York Yankees are the classiest baseball team.

My name is Angelo.

👏 Correct! Whether or not my name is actually Angelo, this statement can only be True or False, so it is a Boolean expression.

Three is the most elegant number.

This quiz is very hard.

Which of the following variables contains a Boolean value?

```
my_cool_variable = 7 + 8 != 13
```

```
my_chill_variable = "This is True."
```

```
my_super_variable = "True" + "False"
```

```
my_fun_variable = 2 + 9
```

Which of the following variables contains a Boolean value?

```
my_cool_variable = 7 + 8 != 13
```

👏 Because the expression on the right includes a relational operator, we can see that it must be True or False, making it a Boolean variable.

```
my_chill_variable = "This is True."
```

```
my_super_variable = "True" + "False"
```

```
my_fun_variable = 2 + 9
```

Determine the truth value of the following expression:

```
(4 <= 2 * 3) and (7 + 1 == 8)
```

False

True

Determine the truth value of the following expression:

```
(4 <= 2 * 3) and (7 + 1 == 8)
```

False

True

👏 Correct! A: `(4 <= 2 * 3) and (7 + 1 == 8)` simplifies to `(True) and (True)`, which is `True`.

Determine the truth value of the following expression:

```
(9 - 4) * 2 == 77 / 7 - 1
```

False

True

Determine the truth value of the following expression:

```
(9 - 4) * 2 == 77 / 7 - 1
```

False

True

👏 Correct! **`(9 - 4) * 2 == 77 / 7 - 1`** simplifies to **`10 == 10`** which is **`True`**.

Determine the truth value of the following expression:

```
4 * 5 <= 21 - 1
```

False

True

Determine the truth value of the following expression:

```
4 * 5 <= 21 - 1
```

False

True

👏 Correct! `4 * 5 <= 21 - 1` simplifies to `20 <= 20`, which is `True`.

Read the following code carefully. What will happen when the code is executed?

```
x = 0

if x = 0:
  print("x is equal to zero")
elif x >= 0:
  print("x is greater than zero")
else:
  print("x is less than zero")
```

"x is greater than zero" will print to the terminal.

There will be a SyntaxError.

"x is equal to zero" will print to the terminal.

"x is equal to zero" and "x is greater than zero" will print to the terminal.

Read the following code carefully. What will happen when the code is executed?

```
x = 0

if x = 0:
  print("x is equal to zero")
elif x >= 0:
  print("x is greater than zero")
else:
  print("x is less than zero")
```

"x is greater than zero" will print to the terminal.

There will be a SyntaxError.

👏 Correct! The line `if x = 0:` will cause a SyntaxError because `=` is not a relational operator. To fix the code `=` should be replaced with `==`.

"x is equal to zero" will print to the terminal.

"x is equal to zero" and "x is greater than zero" will print to the terminal.

Determine the truth value of the following expression:

```
3 ** 2 + 1 != 30 / 3
```

True

False

Determine the truth value of the following expression:

```
3 ** 2 + 1 != 30 / 3
```

True

False

👏 Correct! `3 ** 2 + 1 != 30 / 3` simplifies to `10 != 10` which is `False`.

Consider the code below; what would this print to the terminal?

```
x = 5

if x <= 2:
  print("This is printed")
if x <= 4:
  print("This is also printed")
if x <= 6:
  print("Is this printed?")
if x <= 8:
  print("This might be printed.")
```

This is printed.

This is also printed.

Is this printed?

Is this printed?

This might be printed.

Nothing is printed.

Consider the code below; what would this print to the terminal?

```
x = 5

if x <= 2:
  print("This is printed")
if x <= 4:
  print("This is also printed")
if x <= 6:
  print("Is this printed?")
if x <= 8:
  print("This might be printed.")
```

This is printed.

This is also printed.

Is this printed?

Is this printed?

This might be printed.

👏 Correct! Since `5 <= 6` and `5 <= 8`, both statements are printed.

Nothing is printed.