4.

Python Operators

Hands-on Tests!

- ✓ Arithmetic Operators
- ✓ Comparison Operators
- ✓ Logical Operators
- ✓ Bit-Wise Operators
- ✓ Membership Operators
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Arithmetic Operators

Operator	Operation	Example
+	Addition	X + Y
-	Subtraction	X – Y
*	Multiplication	X * Y
/	Division	X / Y
%	Modulus	X % Y
**	Exponentiation	X ** Y
//	Floor Division	X // Y

Operator	Example	Same as
=	X = 1	X = 1
+=	X += 2	X = X + 2
-=	X -= 3	X = X – 3
*=	X *= 4	X = X * 4
/=	X /= 5	X = X / 5
%=	X %= 6	X = X % 6
//=	X //= 7	X = X // 7
**=	X **= 8	X = X ** 8
&=	X &= 9	X = X & 9
|=	X |= 10	X = X | 10
^=	X ^= 11	X = X ^ 11
>>=	X >>= 12	X = X >> 12
<<=	X <<= 13	X = X << 13

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Comparison Operators

Operator	Operation	Example
==	Equal	X == Y
!=	Not equal	X != Y
>	Greater than	X > Y
<	Less than	X < Y
>=	Greater than or equal to	X >= Y
<=	Less than or equal to	X <= Y

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Logical Operators

Operator	Description	Example
and	Returns True if both statements are true	x > 7 and x < 12
or	Returns True if one of the statements is true	x < 5 or x > 10
not	Reverse the result, returns False if the result is true	not(x > 7 and x < 12)

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Bit-Wise Operators

Operator	Operation	Example
&	AND	Sets each bit to 1 if both bits are 1
|	OR	Sets each bit to 1 if one of two bits is 1
^	XOR	Sets each bit to 1 if only one of two bits is 1
~	NOT	Inverts all the bits
<<	Zero fill left shift	Shift left and left-most bit falls off
>>	Signed right shift	Shift right and right-most bit falls off

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Membership Operators

Operator	Description	Example
in	Returns True if the value exists in the object	X in Y 23 in my_list
not in	Returns True if the value does not exists in the object	X not in Y “Hey” not in my_list

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Membership Operators

Operator	Description	Example
is	Returns True if both variables are the **same objects**	A is B A is 23
is not	Returns True if variables are not the **same objects**	A is not B A is not 49

1. **What does it mean, being the same object?**

2. **The difference between "==" and "is" ?**

Let's see some examples...

Thanks!

Got any questions or suggestions?

Here's some contact info:

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