Operators



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Overview



Math Operators

Logical Operators

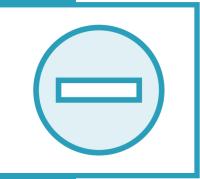
Bitwise Operators



Mathematical statements



$$5 + 7 = 12$$

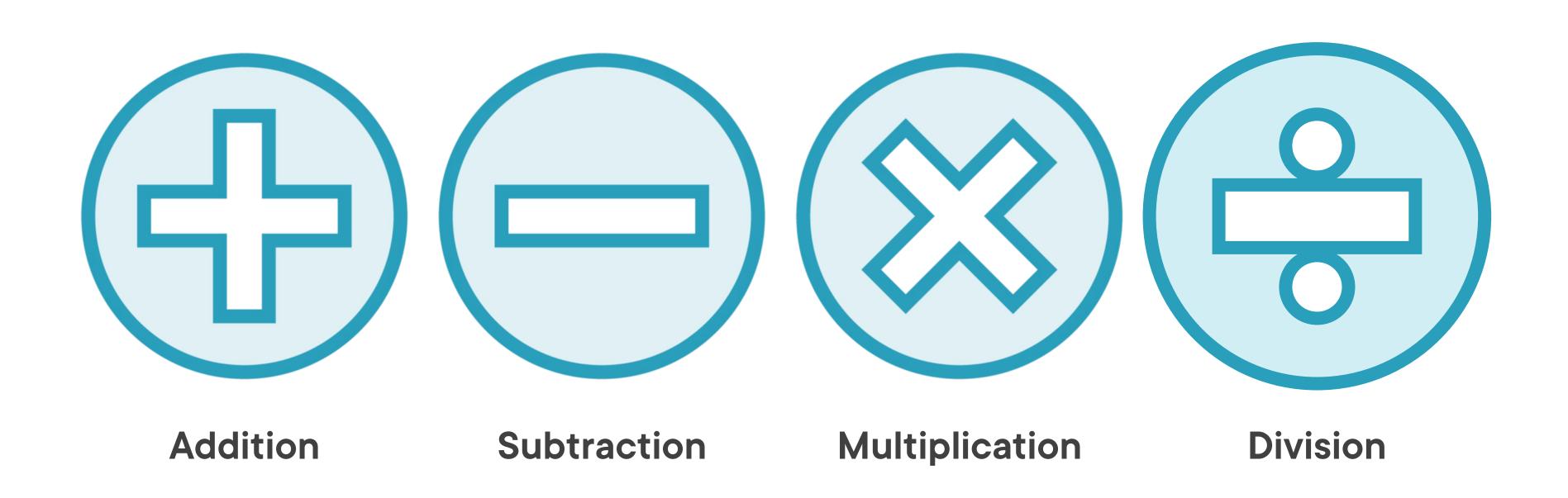


$$21 - 5 = 16$$





Math Operators



Data Types and Exponents

An integer can only have an integer exponent i32::pow(x,y)

A floating-point number can have either and integer or a floating-point exponent.

f32::powi(x,y) or f32::powf(x,y)

Order of Operations (PEMDAS)

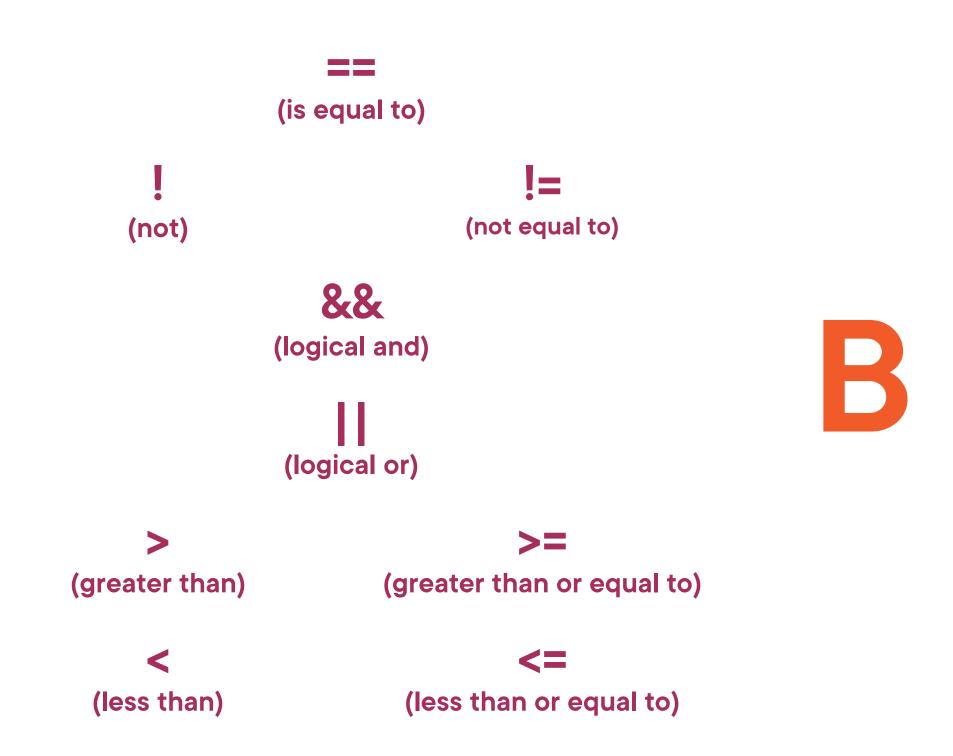
() Parentheses

 χ^2 Exponents

X - Multiplication & Division

+ Addition and Subtraction

Logic Operators





Logical Operators

AND

BP	ID	
No	No	No
No	Yes	No
Yes	No	No
Yes	Yes	Yes

BP = Boarding Pass

ID = Identity

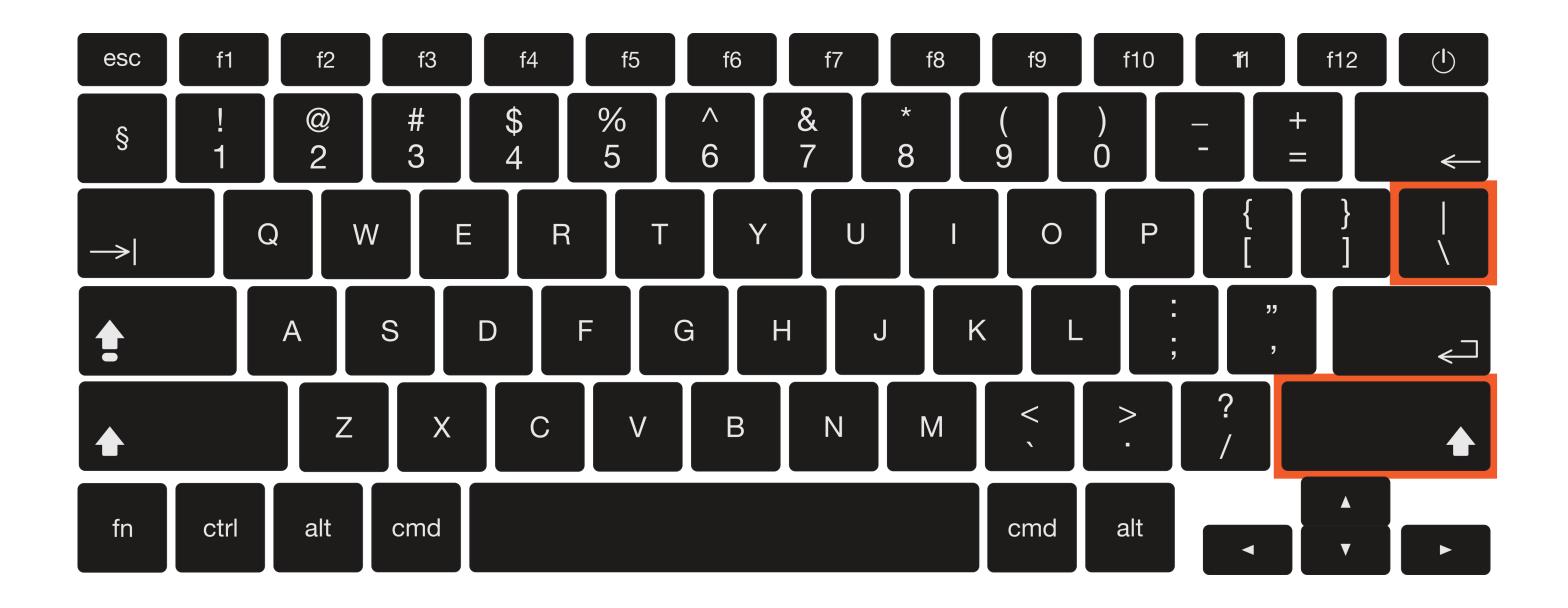
OR

P	DL	
No	No	No
No	Yes	Yes
Yes	No	Yes
Yes	Yes	Yes

P = Passport

DL = Driver's License





Bitwise Operators

86	27
01010110	00011011
	01010110
& (and)	00011011
	00010010
	01010110
(or)	00011011
	01011111
	01010110
^ (xor)	00011011
	01001101
	01010110
<< (shift)	00011011
	010011010

Bitwise Operators

(or)	01010110
	<u>00011011</u> <u>01011111</u>
^ (xor)	01010110
	00011011
	01001101
×× (shift)	01010110
	00011011
	00000010

Haversine Formula

$$hav(\theta) = hav(\varphi_2 - \varphi_1) + cos(\varphi_1) \times cos(\varphi_2) \times hav(\lambda_2 - \lambda_1)$$

$$hav(\theta) = hav(\varphi_2 - \varphi_1) + cos(\varphi_1) \times cos(\varphi_2) \times hav(\lambda_2 - \lambda_1)$$

Rust Operators



https://doc.rust-lang.org/stable/book/appendix-02-operators.html