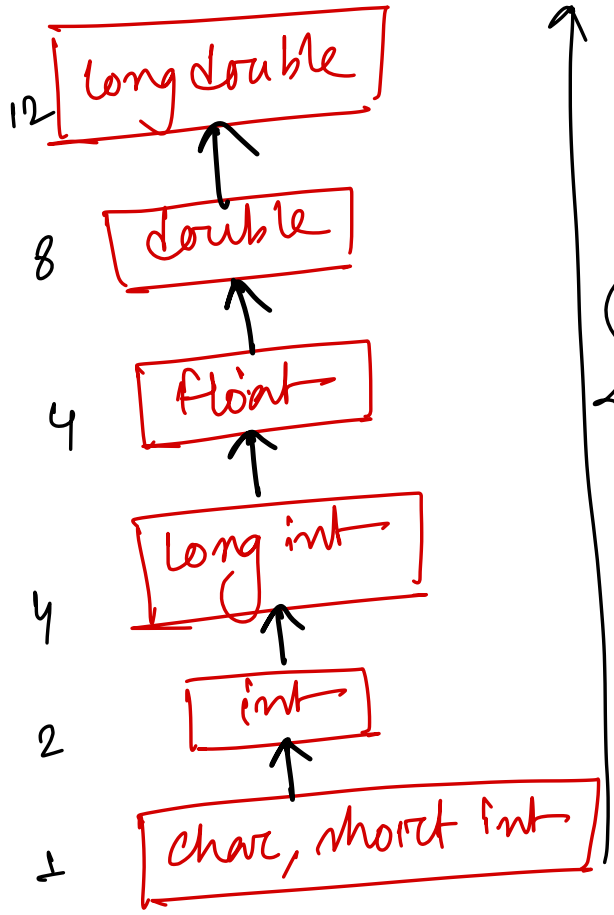
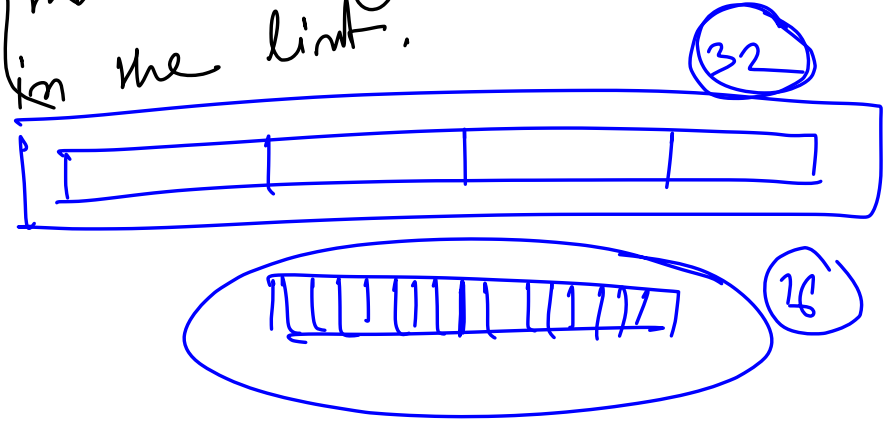
Type Conversion

- Implicit Type Conversion
  - Automatic Type Conversion
    - Automatic unary T.C.
    - Automatic Binary T.C.
  - Type Conversion in Assignments.
- Explicit Type Conversion
  - Type Casting.

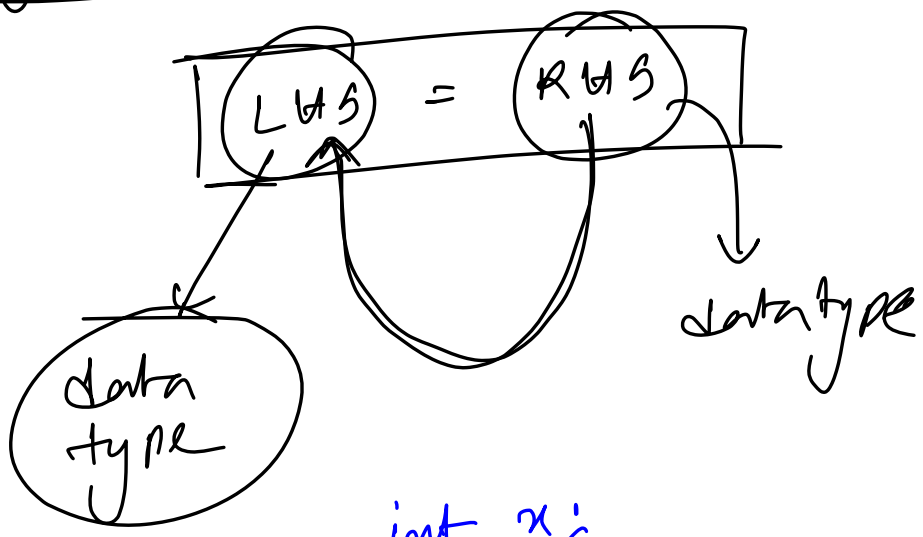


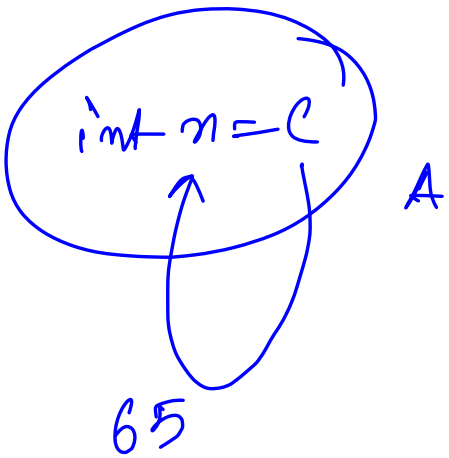
4 + 5.3 = 9.3

The result would be in that data type which is above in the list.



Type Conversion in Assignments.






```
int x;
float y = 8.9;
```

x = y → 8

```
ch = A
ch1 = ch + 2;
```

c

Type Casting

```
int x = 20;
int y = 6;
```

x/y = 3

3.66667

```
float f = x/y;
```

3

3.0

(data type)

Type casting

```
int x = 20;
int y = 6;
float z = (float) x / y;
```

z = (float) 20 / 6

= 20.0 / 6

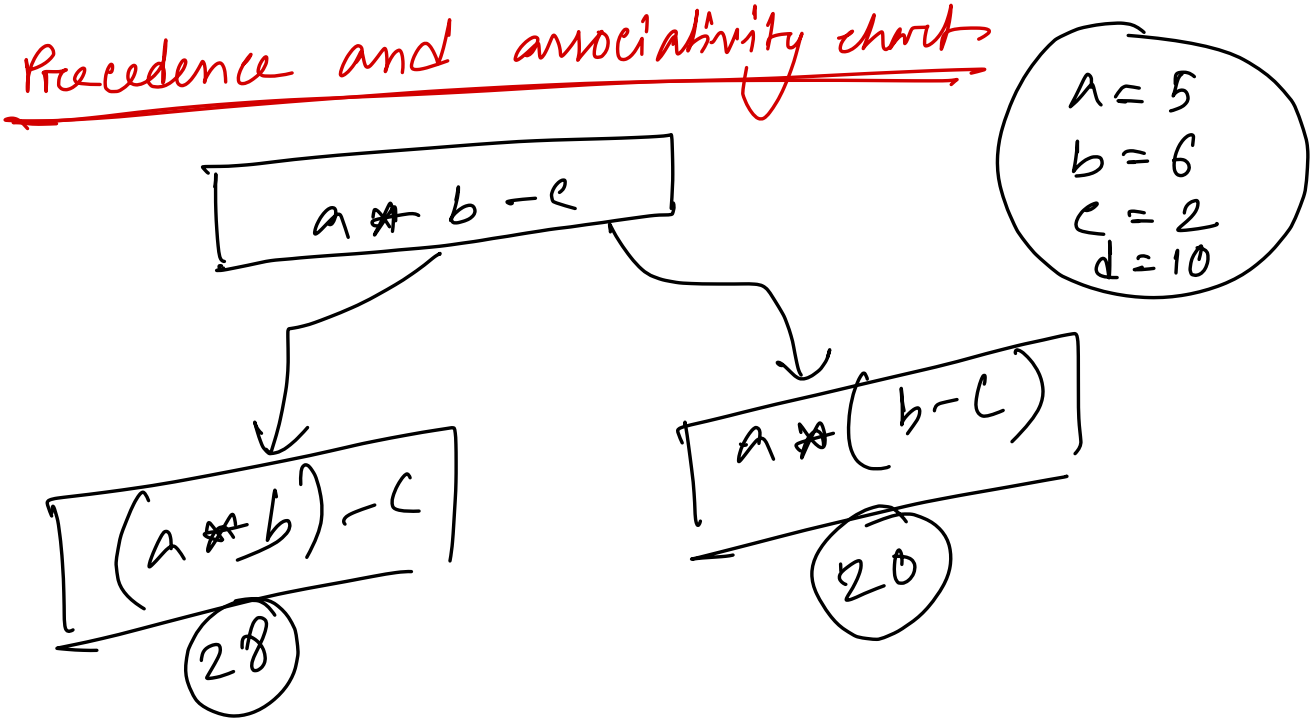
= 3.666667

int x = 65;

char c = x;

char c = (char) x;

Precedence and associativity chart

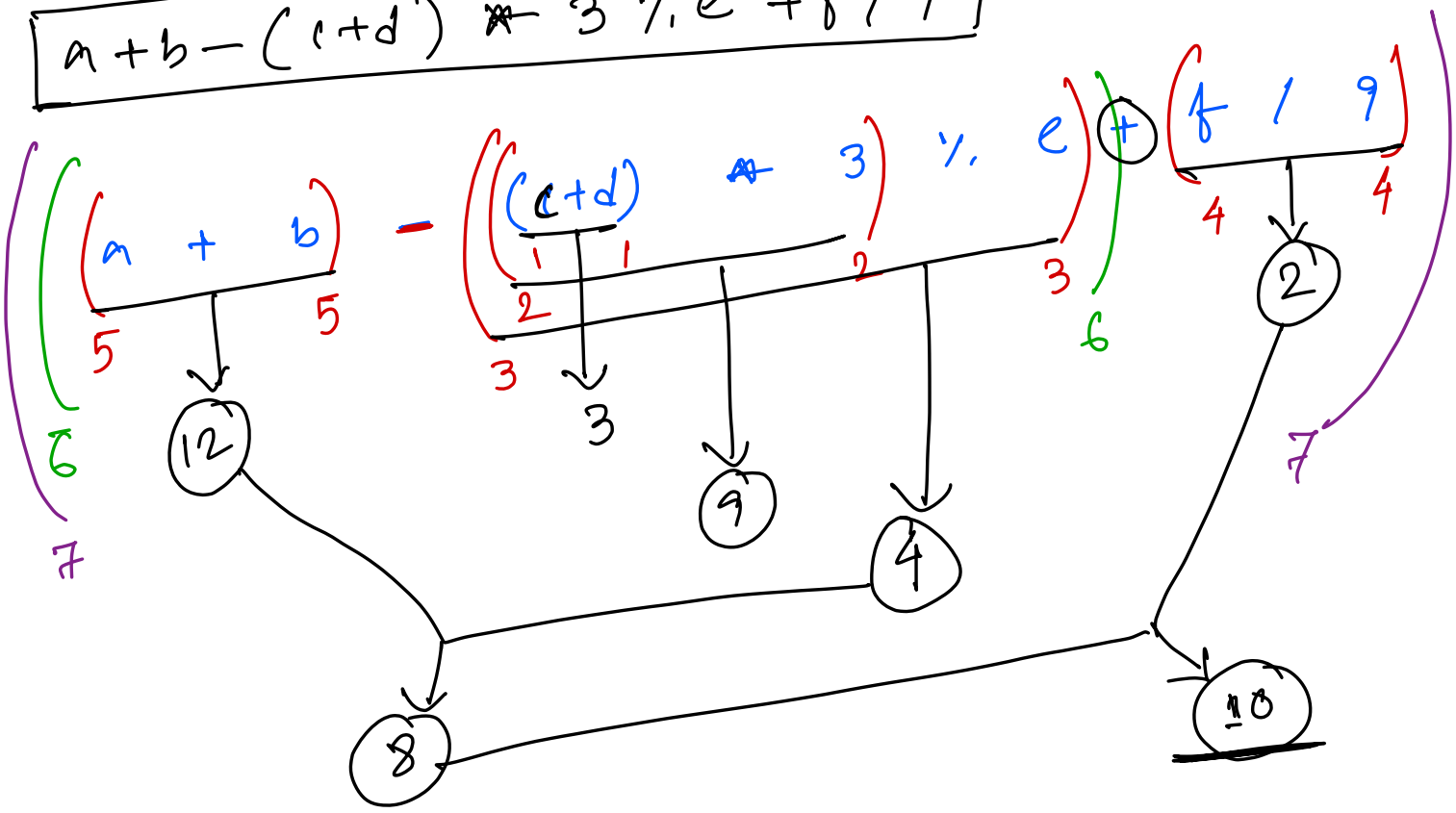


	operators	Associativity.
X	( ) [ ] . →	left to Right
U (unary)	+, −, ++, −−, ~, ! * (dereference operator), & (address of "), (data type), sizeof	Right to left
A (Arithmetic)	* / %	Left to Right
	+ −	
S (shifting)	<< >>	
C (comparison)	<, <=, >, >=	
	==, !=	
B (Boolean) (AND)	&	
	^	
	|	
L (logical)	&&	
	||	
—	? :	Right to left
A (Assignment)	=, +=, −=, /=, *=, ^=, &=, |=, <<=, >>= %=	
C (comma)	,	Left to Right

Example-1

a = 8, b = 4, c = 2, d = 1, e = 5, f = 20

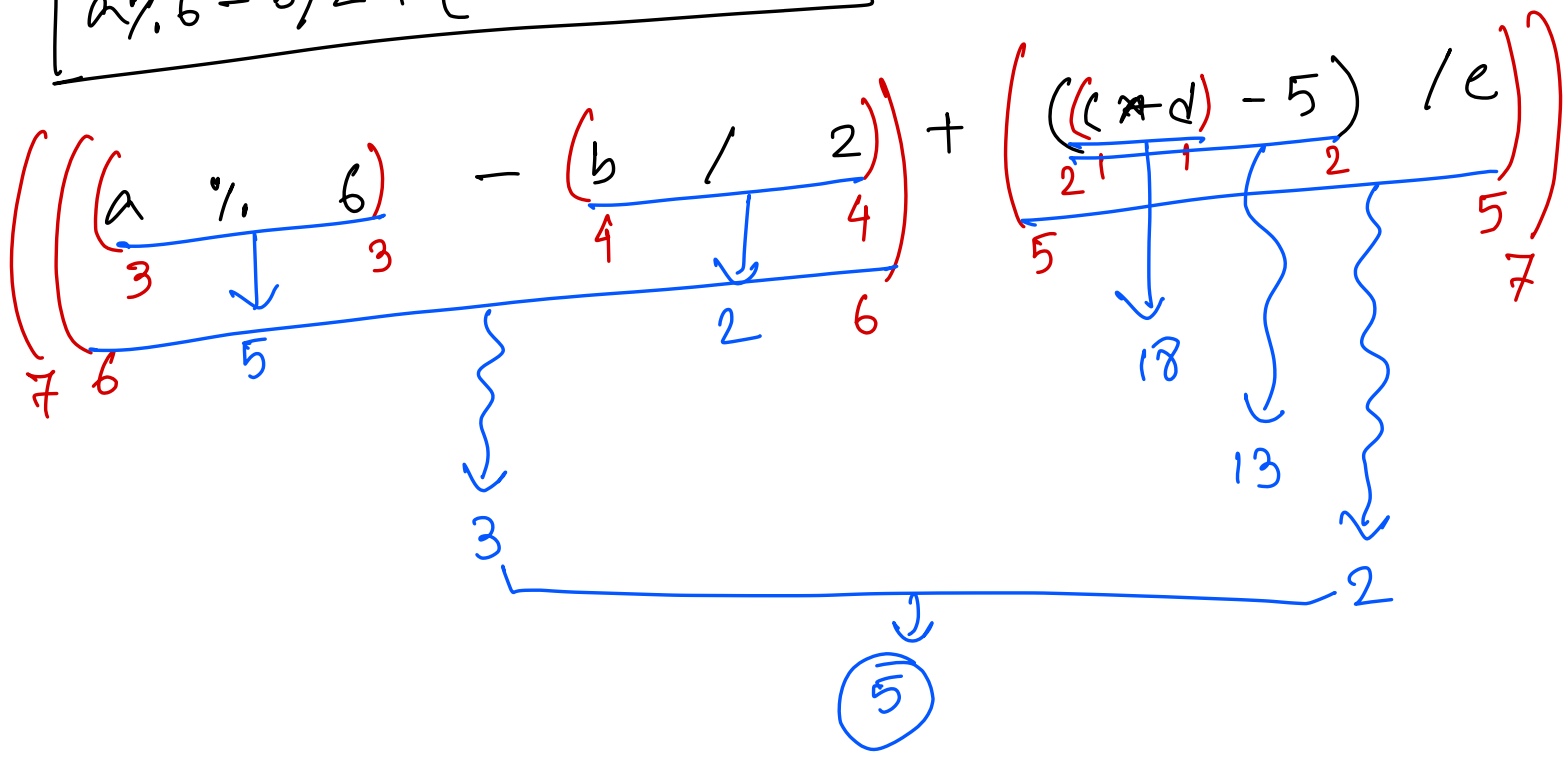
`a + b - (c + d) * 3 % e + f / 9`

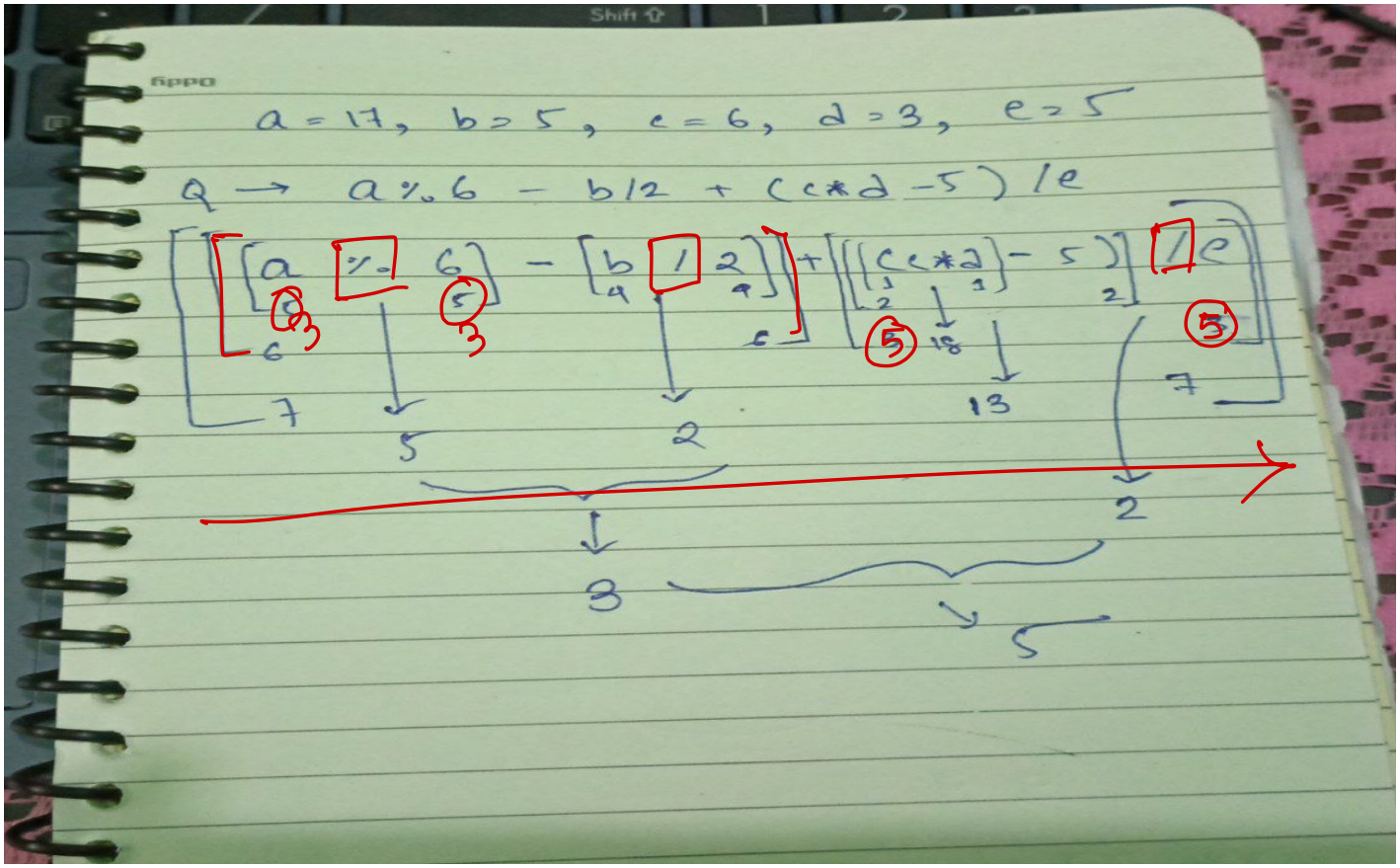


Example-2

a = 17, b = 5, c = 6, d = 3, e = 5

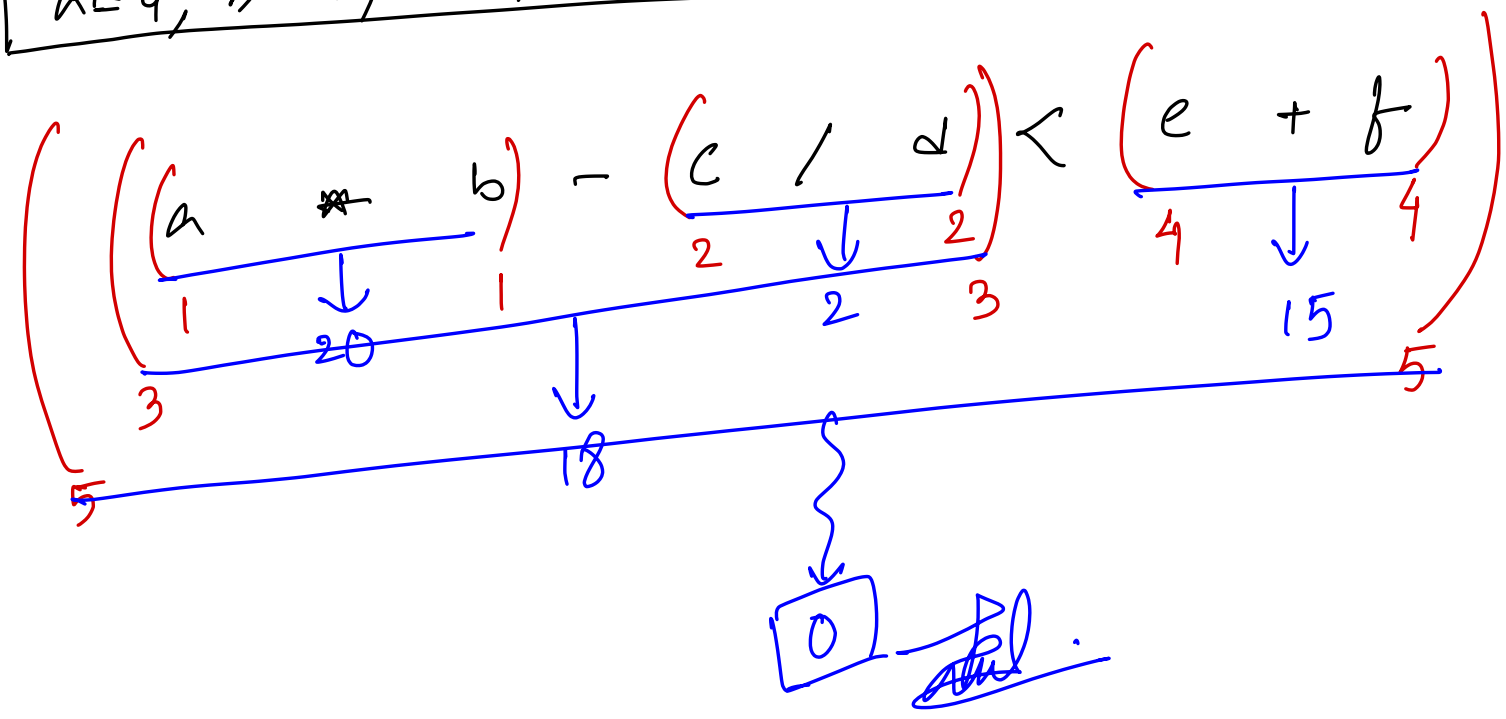
`a % 6 - b / 2 + (c * d - 5) / e`





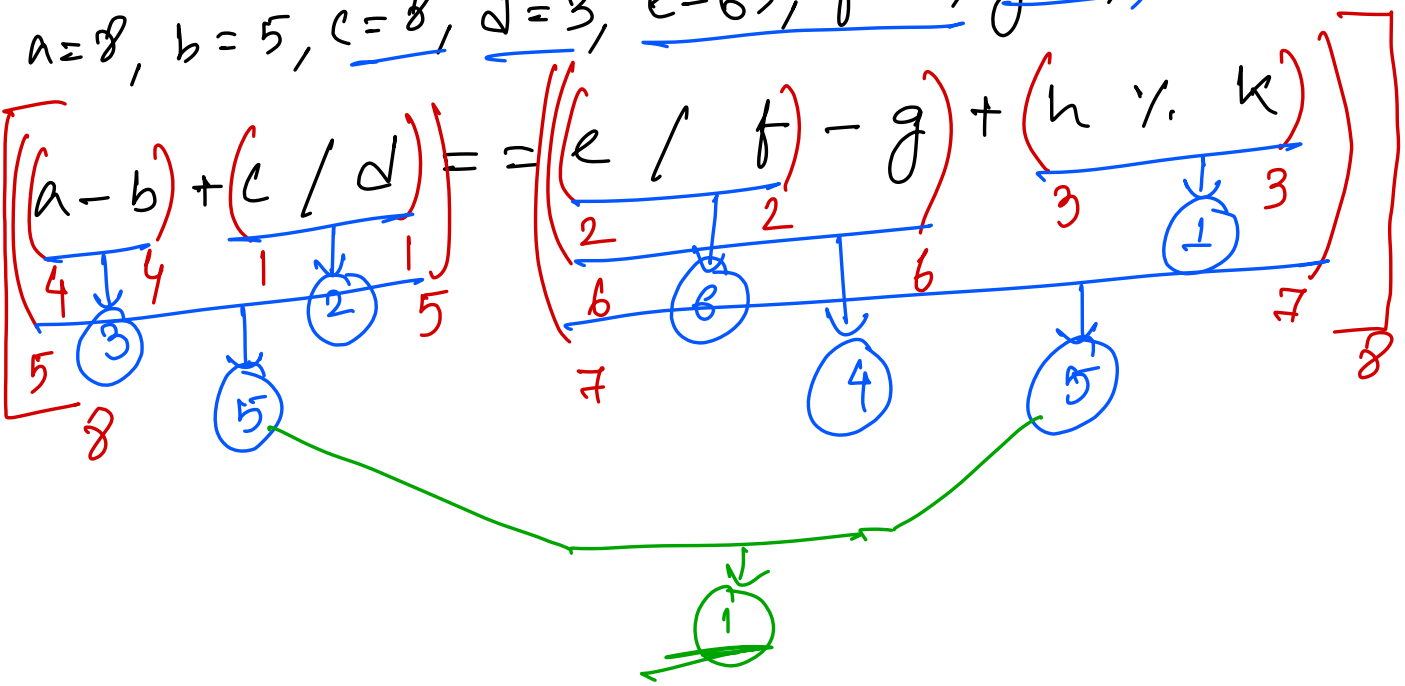
Example - 3

a = 4, b = 5, c = 6, d = 3, e = 5, f = 10



Example -4

a=8, b=5, c=8, d=3, e=65, f=10, g=2, h=5, k=2



Example -5

a=8, b=3, c=2, d=3, e=2, f=11