

## Floating Point Addition

X: \_\_\_\_\_ + Y: \_\_\_\_\_

X: \_\_\_\_\_

Y: \_\_\_\_\_

---

Step 1: Extract the exponent and value

Sign<sub>x</sub>: \_

Sign<sub>y</sub>: \_

Exp<sub>x</sub>: \_

Exp<sub>y</sub>: \_

Val<sub>x</sub>: \_\_\_\_\_\*

Val<sub>y</sub>: \_\_\_\_\_\*

2's Val<sub>x</sub>: \_\_\_\_\_\*

2's Val<sub>y</sub>: \_\_\_\_\_\*

---

Step 2: Equalize the exponents

Value of Largest Exp: \_\_\_\_\_

X: \_\_ or Y: \_\_

Shift Direction: \_\_\_\_\_ Shift Amount: \_\_\_\_\_

X: \_\_ or Y: \_\_

New Val<sub>\_\_</sub>: \_\_\_\_\_\*

X: \_\_ or Y: \_\_

---

Step 3: Integer addition

Val<sub>x</sub>: \_\_\_\_\_\*

Val<sub>y</sub>: \_\_\_\_\_\*

Val<sub>R</sub>: \_\_\_\_\_\*

---

Step 4: 2's comp to sign-magnitude

Mag<sub>R</sub>: \_\_\_\_\_\*

Sign<sub>R</sub>: \_

---

Step 5: Normalize the result

Exp<sub>R</sub>: \_

Sign<sub>R</sub>: \_

Mag<sub>R</sub>: \_\_\_\_\_\*

Norm Mag<sub>R</sub>: \_\_\_\_\_\*

Norm Exp<sub>R</sub>: \_

---

Step 6: Reassemble components

Sign<sub>R</sub>: \_

Exp<sub>R</sub>: \_\_\_\_\_

Mag<sub>R</sub>: \_\_\_\_\_\*

Answer: \_\_\_\_\_\*