

## Sample expression evaluation

step-1

$$(((1 + 2) + ((1 + 2) - (3 + 4))) + (5 + (6 + 7))) = ((18 - 1) + 0)$$

step-2

$$(((1 + 2) + ((1 + 2) - (3 + 4))) + (5 + (6 + 7))) = (17 + 0)$$

step-3

$$((3 + ((1 + 2) - (3 + 4))) + (5 + (6 + 7))) = ((18 - 1) + 0)$$

step-4

$$(((1 + 2) + ((1 + 2) - (3 + 4))) + (5 + 13)) = ((18 - 1) + 0)$$

step-5

$$(((1 + 2) + (3 - (3 + 4))) + (5 + (6 + 7))) = ((18 - 1) + 0)$$

step-6

$$(((1 + 2) + ((1 + 2) - 7)) + (5 + (6 + 7))) = ((18 - 1) + 0)$$

step-7

$$(((1 + 2) + ((1 + 2) - (3 + 4))) + (5 + (6 + 7))) = 17$$

step-8

$$((3 + ((1 + 2) - (3 + 4))) + (5 + (6 + 7))) = (17 + 0)$$

step-9

$$(((1 + 2) + ((1 + 2) - (3 + 4))) + (5 + 13)) = (17 + 0)$$

step-10

$$(((1 + 2) + (3 - (3 + 4))) + (5 + (6 + 7))) = (17 + 0)$$

step-11

$$(((1 + 2) + ((1 + 2) - 7)) + (5 + (6 + 7))) = (17 + 0)$$

step-12

$$((3 + ((1 + 2) - (3 + 4))) + (5 + 13)) = ((18 - 1) + 0)$$

step-13

$$((3 + (3 - (3 + 4))) + (5 + (6 + 7))) = ((18 - 1) + 0)$$

step-14

$$((3 + ((1 + 2) - 7)) + (5 + (6 + 7))) = ((18 - 1) + 0)$$

step-15

$$(((1 + 2) + ((1 + 2) - (3 + 4))) + 18) = ((18 - 1) + 0)$$

step-16

$$(((1 + 2) + (3 - (3 + 4))) + (5 + 13)) = ((18 - 1) + 0)$$

step-17

$$(((1 + 2) + ((1 + 2) - 7)) + (5 + 13)) = ((18 - 1) + 0)$$

step-18

$$(((1 + 2) + (3 - 7)) + (5 + (6 + 7))) = ((18 - 1) + 0)$$

step-19  
 $((3 + ((1 + 2) - (3 + 4))) + (5 + (6 + 7))) = 17$   
 step-20  
 $((1 + 2) + ((1 + 2) - (3 + 4))) + (5 + 13) = 17$   
 step-21  
 $((1 + 2) + (3 - (3 + 4))) + (5 + (6 + 7)) = 17$   
 step-22  
 $((1 + 2) + ((1 + 2) - 7)) + (5 + (6 + 7)) = 17$   
 step-23  
 $(3 + ((1 + 2) - (3 + 4))) + (5 + 13) = (17 + 0)$   
 step-24  
 $(3 + (3 - (3 + 4))) + (5 + (6 + 7)) = (17 + 0)$   
 step-25  
 $(3 + ((1 + 2) - 7)) + (5 + (6 + 7)) = (17 + 0)$   
 step-26  
 $((1 + 2) + ((1 + 2) - (3 + 4))) + 18 = (17 + 0)$   
 step-27  
 $((1 + 2) + (3 - (3 + 4))) + (5 + 13) = (17 + 0)$   
 step-28  
 $((1 + 2) + ((1 + 2) - 7)) + (5 + 13) = (17 + 0)$   
 step-29  
 $((1 + 2) + (3 - 7)) + (5 + (6 + 7)) = (17 + 0)$   
 step-30  
 $(3 + ((1 + 2) - (3 + 4))) + 18 = ((18 - 1) + 0)$   
 step-31  
 $(3 + (3 - (3 + 4))) + (5 + 13) = ((18 - 1) + 0)$   
 step-32  
 $(3 + ((1 + 2) - 7)) + (5 + 13) = ((18 - 1) + 0)$   
 step-33  
 $(3 + (3 - 7)) + (5 + (6 + 7)) = ((18 - 1) + 0)$   
 step-34  
 $((1 + 2) + (3 - (3 + 4))) + 18 = ((18 - 1) + 0)$   
 step-35  
 $((1 + 2) + ((1 + 2) - 7)) + 18 = ((18 - 1) + 0)$   
 step-36  
 $((1 + 2) + (3 - 7)) + (5 + 13) = ((18 - 1) + 0)$   
 step-37  
 $((1 + 2) + (-4)) + (5 + (6 + 7)) = ((18 - 1) + 0)$   
 step-38  
 $(3 + ((1 + 2) - (3 + 4))) + (5 + 13) = 17$   
 step-39  
 $(3 + (3 - (3 + 4))) + (5 + (6 + 7)) = 17$   
 step-40  
 $(3 + ((1 + 2) - 7)) + (5 + (6 + 7)) = 17$   
 step-41  
 $((1 + 2) + ((1 + 2) - (3 + 4))) + 18 = 17$

step-42  
 $((1 + 2) + (3 - (3 + 4))) + (5 + 13) = 17$   
 step-43  
 $((1 + 2) + ((1 + 2) - 7)) + (5 + 13) = 17$   
 step-44  
 $((1 + 2) + (3 - 7)) + (5 + (6 + 7)) = 17$   
 step-45  
 $(3 + ((1 + 2) - (3 + 4))) + 18 = (17 + 0)$   
 step-46  
 $(3 + (3 - (3 + 4))) + (5 + 13) = (17 + 0)$   
 step-47  
 $(3 + ((1 + 2) - 7)) + (5 + 13) = (17 + 0)$   
 step-48  
 $(3 + (3 - 7)) + (5 + (6 + 7)) = (17 + 0)$   
 step-49  
 $((1 + 2) + (3 - (3 + 4))) + 18 = (17 + 0)$   
 step-50  
 $((1 + 2) + ((1 + 2) - 7)) + 18 = (17 + 0)$   
 step-51  
 $((1 + 2) + (3 - 7)) + (5 + 13) = (17 + 0)$   
 step-52  
 $((1 + 2) + (-4)) + (5 + (6 + 7)) = (17 + 0)$   
 step-53  
 $(3 + (3 - (3 + 4))) + 18 = ((18 - 1) + 0)$   
 step-54  
 $(3 + ((1 + 2) - 7)) + 18 = ((18 - 1) + 0)$   
 step-55  
 $(3 + (3 - 7)) + (5 + 13) = ((18 - 1) + 0)$   
 step-56  
 $(3 + (-4)) + (5 + (6 + 7)) = ((18 - 1) + 0)$   
 step-57  
 $((1 + 2) + (3 - 7)) + 18 = ((18 - 1) + 0)$   
 step-58  
 $((1 + 2) + (-4)) + (5 + 13) = ((18 - 1) + 0)$   
 step-59  
 $(3 + ((1 + 2) - (3 + 4))) + 18 = 17$   
 step-60  
 $(3 + (3 - (3 + 4))) + (5 + 13) = 17$   
 step-61  
 $(3 + ((1 + 2) - 7)) + (5 + 13) = 17$   
 step-62  
 $(3 + (3 - 7)) + (5 + (6 + 7)) = 17$   
 step-63  
 $((1 + 2) + (3 - (3 + 4))) + 18 = 17$   
 step-64  
 $((1 + 2) + ((1 + 2) - 7)) + 18 = 17$

step-65  
 $((1 + 2) + (3 - 7)) + (5 + 13) = 17$   
 step-66  
 $((1 + 2) + (-4)) + (5 + (6 + 7)) = 17$   
 step-67  
 $(3 + (3 - (3 + 4))) + 18 = (17 + 0)$   
 step-68  
 $(3 + ((1 + 2) - 7)) + 18 = (17 + 0)$   
 step-69  
 $(3 + (3 - 7)) + (5 + 13) = (17 + 0)$   
 step-70  
 $(3 + (-4)) + (5 + (6 + 7)) = (17 + 0)$   
 step-71  
 $((1 + 2) + (3 - 7)) + 18 = (17 + 0)$   
 step-72  
 $((1 + 2) + (-4)) + (5 + 13) = (17 + 0)$   
 step-73  
 $(3 + (3 - 7)) + 18 = ((18 - 1) + 0)$   
 step-74  
 $(3 + (-4)) + (5 + 13) = ((18 - 1) + 0)$   
 step-75  
 $(-1) + (5 + (6 + 7)) = ((18 - 1) + 0)$   
 step-76  
 $((1 + 2) + (-4)) + 18 = ((18 - 1) + 0)$   
 step-77  
 $(3 + (3 - (3 + 4))) + 18 = 17$   
 step-78  
 $(3 + ((1 + 2) - 7)) + 18 = 17$   
 step-79  
 $(3 + (3 - 7)) + (5 + 13) = 17$   
 step-80  
 $(3 + (-4)) + (5 + (6 + 7)) = 17$   
 step-81  
 $((1 + 2) + (3 - 7)) + 18 = 17$   
 step-82  
 $((1 + 2) + (-4)) + (5 + 13) = 17$   
 step-83  
 $(3 + (3 - 7)) + 18 = (17 + 0)$   
 step-84  
 $(3 + (-4)) + (5 + 13) = (17 + 0)$   
 step-85  
 $(-1) + (5 + (6 + 7)) = (17 + 0)$   
 step-86  
 $((1 + 2) + (-4)) + 18 = (17 + 0)$   
 step-87  
 $(3 + (-4)) + 18 = ((18 - 1) + 0)$

step-88  
 $((-1) + (5 + 13)) = ((18 - 1) + 0)$   
step-89  
 $((3 + (3 - 7)) + 18) = 17$   
step-90  
 $((3 + (-4)) + (5 + 13)) = 17$   
step-91  
 $((-1) + (5 + (6 + 7))) = 17$   
step-92  
 $((1 + 2) + (-4) + 18) = 17$   
step-93  
 $((3 + (-4)) + 18) = (17 + 0)$   
step-94  
 $((-1) + (5 + 13)) = (17 + 0)$   
step-95  
 $((-1) + 18) = ((18 - 1) + 0)$   
step-96  
 $((3 + (-4)) + 18) = 17$   
step-97  
 $((-1) + (5 + 13)) = 17$   
step-98  
 $((-1) + 18) = (17 + 0)$   
step-99  
 $17 = ((18 - 1) + 0)$   
step-100  
 $((-1) + 18) = 17$   
step-101  
 $17 = (17 + 0)$   
step-102  
 $17 = 17$