

**Objectives:**

- ✦ Understand the use of brackets;
- ✦ Determine when the brackets are necessary

Teach with discovery method: *(Finish this page in class together)*

With and without the brackets, when will be the same/different. Then draw the conclusion

**are we the same?**

*Sense of the using brackets-314*

Let's do these sums and see if they are the same or not.

1.) a:  $12 + 7 - 5 = \underline{14}$       Same / Different  
b:  $(12 + 7) - 5 = \underline{14}$

2.) a:  $15 + 8 + 4 = \underline{27}$       Same / Different  
b:  $(15 + 8) + 4 = \underline{27}$

3.) a:  $17 - 8 + 6 = \underline{15}$       Same / Different  
b:  $(17 - 8) + 6 = \underline{15}$

4.) a:  $13 - 9 - 4 = \underline{0}$       Same / Different  
b:  $(13 - 9) - 4 = \underline{0}$

✦ *Class discussion before showing the answer on the board.*

**Discovery:**

The brackets in the first operation does NOT affect the final answer so we can forget about them.

*(In order words, we can forget about it.)*

# are we the same?

*Sense of the using brackets-314*

Let check 4 other cases. See what you get?

1.) a:  $5 + 4 + 6 = \underline{15}$       ←      Same / Different  
 b:  $5 + (4 + 6) = \underline{15}$       ←      Same / Different

2.) a:  $7 + 14 - 6 = \underline{15}$       ←      Same / Different  
 b:  $7 + (14 - 6) = \underline{15}$       ←      Same / Different

3.) a:  $11 - 3 + 5 = \underline{13}$       ←      Same / Different  
 b:  $11 - (3 + 5) = \underline{3}$       ←      Same / Different

4.) a:  $15 - 6 - 4 = \underline{5}$       ←      Same / Different  
 b:  $15 - (6 - 4) = \underline{13}$       ←      Same / Different

## Discovery:

✚ *Class discussion before writing the answer on the board.*

**If the brackets follows a "+" sign, we can forget about them. If they follow a "-", we have to finish their calculation first.**

If the brackets can be omitted, we should forget about them. It would speed up our calculation.

Instruct the students:

1) ignore the brackets when possible

2) Try to consider which pair of numbers should be done first for easier calculation  
(the easier pairs are underline)

are we the same?

3) Do question 1, 6, 9 and 13 together before the class work.

Ignore the brackets if possible. Pick an easier pair of number to calculate first

**Exercise:**

Teachers also read out the easier pairs when marking this exercise in class together.

1.)  $(8 + \underline{5}) + \underline{15} = \underline{28}$

2.)  $(\underline{12} + \underline{9}) + \underline{11} = \underline{32}$

3.)  $(\underline{18} + \underline{32}) - \underline{8} = \underline{42}$

4.)  $(\underline{15} - \underline{9}) + \underline{25} = \underline{31}$

5.)  $(\underline{22} + \underline{5}) - \underline{12} = \underline{15}$

6.)  $(\underline{37} - \underline{13}) - \underline{17} = \underline{7}$

7.)  $(\underline{42} + \underline{45}) - \underline{32} = \underline{55}$

8.)  $(\underline{32} - \underline{49}) + \underline{25} = \underline{8}$

9.)  $\underline{16} + (\underline{4} + \underline{5}) = \underline{25}$

10.)  $\underline{18} + (\underline{12} - \underline{5}) = \underline{25}$

11.)  $\underline{7} + (\underline{9} - \underline{7}) = \underline{9}$

12.)  $\underline{13} + (\underline{3} - \underline{8}) = \underline{8}$

13.)  $16 - (\underline{6} + \underline{5}) = \underline{5}$

14.)  $21 - (\underline{12} - \underline{7}) = \underline{16}$

15.)  $64 - (\underline{34} + \underline{5}) = \underline{25}$

16.)  $\underline{55} + (\underline{18} + \underline{25}) = \underline{98}$

17.)  $(\underline{26} + \underline{7}) + \underline{14} = \underline{47}$

18.)  $\underline{37} + (\underline{23} - \underline{7}) = \underline{53}$

19.)  $12 - (\underline{8} + \underline{2}) = \underline{2}$

20.)  $(\underline{52} - \underline{27}) + \underline{37} = \underline{62}$

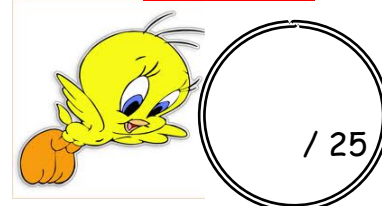
21.)  $(\underline{44} - \underline{17}) - \underline{14} = \underline{13}$

22.)  $\underline{25} + (\underline{19} - \underline{5}) = \underline{39}$

23.)  $(\underline{31} - \underline{8}) + \underline{19} = \underline{42}$

24.)  $\underline{61} + (\underline{14} - \underline{11}) = \underline{64}$

25.)  $\underline{36} + (\underline{1} - \underline{11}) = \underline{26}$



Teachers also read out the easier pairs when marking this exercise in class together.

## are we the same? - HW

Sense of the using brackets-314

Ignore the brackets if possible. Pick an easier pair of numbers to calculate first.

$$1.) (7 + 9) + 21 = \underline{37}$$

$$2.) 24 - (18 - 9) = \underline{15}$$

$$3.) (37 + 28) - 8 = \underline{57}$$

$$4.) 48 + (21 - 25) = \underline{44}$$

$$5.) (34 + 8) - 24 = \underline{18}$$

$$6.) 98 - (38 + 17) = \underline{43}$$

$$7.) (83 + 18) - 23 = \underline{78}$$

$$8.) 81 + (32 - 81) = \underline{32}$$

$$9.) (35 - 8) - 5 = \underline{22}$$

$$10.) 43 + (17 - 34) = \underline{26}$$

$$11.) (53 - 24) + 17 = \underline{46}$$

$$12.) 45 + (77 - 35) = \underline{87}$$

$$13.) 72 - (72 - 18) = \underline{18}$$

$$14.) (12 + 23) + 17 = \underline{52}$$

$$15.) 94 - (34 + 17) = \underline{43}$$

$$16.) 26 + (38 + 24) = \underline{88}$$

$$17.) (37 + 18) + 23 = \underline{78}$$

$$18.) 59 + (43 - 29) = \underline{73}$$

$$19.) (55 - 23) - 25 = \underline{7}$$

$$20.) (64 - 38) + 58 = \underline{84}$$

$$21.) 25 + (5 + 18) = \underline{48}$$

$$22.) (27 - 8) + 33 = \underline{52}$$

$$23.) (75 - 28) + 18 = \underline{65}$$

$$24.) 55 + (74 - 25) = \underline{104}$$

$$25.) 18 + (23 - 31) = \underline{10}$$

