

Mental Arithmetic

Objective: The student will use the operation of addition/subtraction/multiplication/division to solve problems.

Materials: 100 chart
Cheat notes for teacher
100 chart transparency for teacher

- Procedure:**
1. Explain process to students.
 - Finger is going to move around on the chart.
 - Finger can ONLY move up/down [top/bottom] or right/left.
 2. Demonstrate while students practice.
 - Put your finger on 15. Add 10. Which way did finger move? (down 1 row)
 - Put your finger back on 15.
Add 11.
Which way did your finger move? (down 1 and over 1) **So adding 11 is like adding 10 and then adding 1.**
 - Put your finger back on 15. Subtract 10. Which way did your finger move? (up 1)
 - Put your finger back on 15.
Subtract 9.
Which way did your finger move? (up 1 and right 1) **So subtracting 9 is like subtracting 10 and adding 1.**
 3. Now try an extended exercise:
Put your finger on the product of 3 and 7.
Check with your neighbor to make sure everyone is starting on the same number. (21)
Add 10.
Subtract 2.
Add 12.
Is the sum of the digits for this number 5? (yes, 41)
Add 23.
Subtract 11.
Subtract 9.
Is this number a multiple of 11 ? (yes, 44)

Teacher Notes:

When starting this with students, be sure to check for correct position every 3-4 computations. The check should be another computation. Do NOT spend more than 4-5 minutes a day on this activity. Be sure and have your notes ready. After about 2 weeks, the 100 chart can start to be taken away.

Note 1

1. Put your finger on the SUM of 11 and 7.
2. Check with your neighbor to make sure that everyone is starting on the same number. (18)
3. Add 20.
4. Subtract 2.
5. Are you on a multiple of 6? (yes, 36)
6. Subtract 10.
7. Subtract 1.
8. Are you on the number of pennies in a quarter? (yes, 25) Add 9.
10. Add 11.
11. Are you on a multiple of 5? (yes, 45)
12. Subtract 2.
13. Add 21.
14. Is the sum of the digits 10?
15. Add 31.
16. Subtract 10.
17. Add 1.
18. Subtract 20.
19. Are both digits the same? (yes, 66)

Note 2

1. Put your finger on the PRODUCT of 11 and 7.
2. Check with your neighbor to make sure that everyone is starting on the same number. (77)
3. Add 20.
4. Subtract 2.
5. Are you on a multiple of 5? (yes, 95)
6. Subtract 10.
7. Subtract 1.
8. Is the 10s place double the 1s place?
9. Add 9.
10. Subtract 30.
11. Are you on a multiple of 3? (yes, 63)
12. Subtract 2.
13. Add 21.
14. Is the sum of the digits 10? (yes, 82)
15. Subtract 31.
16. Add 10.
17. Add 1.
18. Subtract 18.
19. Are both digits the same? (yes, 44)

Note 3

1. Put your finger on the PRODUCT of 5 and 7.
2. Check with your neighbor to make sure that everyone is starting on the same number. (35)
3. Subtract 3.
4. Add 11.
5. Are the digits in consecutive descending order? (43)
6. Add 12.
7. Add 9.
8. Subtract 1.
9. Is the 10s place double the 1s place? (yes, 63)
10. Subtract 9.
11. Add 1.
12. Add 20.
13. Is this the amount of change you would get from \$1.00, after making a 25¢ purchase? (75¢)
14. Subtract 3.
15. Add 9.
16. Is this number a multiple of 9? (yes, 81)
17. Subtract 29.
18. Is the sum of the digits 7? (yes, 52)