**Adding Integers with Context**

Name ___Solutions___

For many students it is easier to remember sign rules when they put the problems into context. The two most useful contexts for adding integers, or signed whole numbers, are money and the number line. Try both and see which one you prefer.

**MONEY**

1. $6 + $7 $= \$13$
(you have $6, then get $7 more)

2. $2 + (-$7) $= -\$5$
(you have $2, then spend 7)

3. -$3 + (-$9) $= -\$12$
(you spend $3, then spend $9)

4. -$10 + $2 $-\$8$
(you spend $10, then get $2 back)

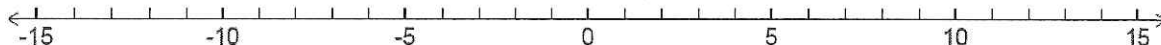5. $11 + (-4)$ $= 7$

6. $-14 + 7$ $= -7$

7. $-3 + 3$ $= 0$

8. $-9 + (-9)$ $= -18$

**THE NUMBER LINE**



9. $4 + 5$ $= 9$
(start on 4, move right 5)

10. $4 + (-5)$ $= -1$
(start on 4, move left 5)
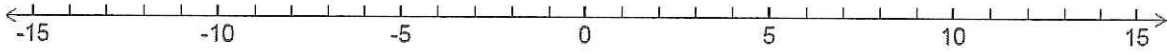
11. $-4 + (-5)$ $= -9$
(start on -4, move left 5)

12. $-7 + 3$ $= -4$
(start on -7, move right 3)

13. $15 + (-6)$ $= 9$

14. $-13 + 2$ $= -11$

15. $-8 + 8$ $= 0$

16. $-6 + (-6)$ $= -12$

Number line from -15 to 15

**Use either context to do these problems. Show your steps when there is more than one operation.**

17. $-7+(-8)$ $= -15$
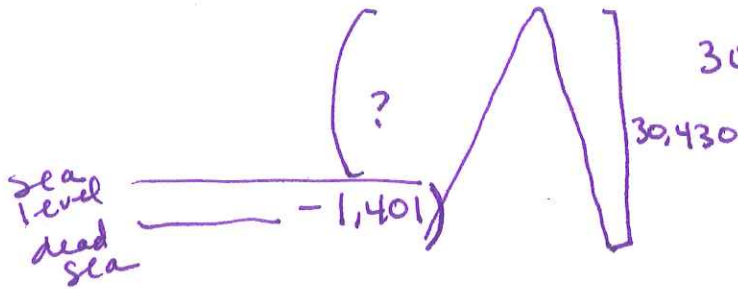
18. $-12+5$ $= -7$

19. $10+(-6)$ $= 4$

20. $3+(-8)$ $= -5$

21. $-6+(-8)+7+3$

$= -14+7+3$

$= -7+3$

$= -4$

22. $30+(-11)+3+(-16)$

$= 33+(-27)$

$= 6$

23. Which context do you prefer and why?

24. The lowest elevation on the surface of our planet is at the Dead Sea in Israel, with an elevation of 1,401 feet below sea level. The highest elevation on the surface on our planet is at the top of Mt. Everest, which is 30,430 feet above the Dead Sea. Find the elevation at the top of Mt. Everest by adding two integers. Draw a picture, show your work and write your answer in a complete sentence.

$30,430 + (-1401) = 29,029$

sea level
dead sea
$-1,401$
? 
30,430

$30430$
$-1401$
$29,029$

Mt. Everest is 29,029 ft above sea level

25. At the end of last month your checking account balance was $307. So far this month you got paid $515, spent $284 on groceries, $28 on coffee at PCC, and returned an item to the store for a credit of $25. What is your new balance? Show all of your steps in an organized way and write your answer in a complete sentence.

$307+515-284-28$

$= 307+515+(-284)+(-28)+25$

$= 847+(-312)$

$= 535$

The new balance is $535.

$307$
$515$
$25$
$847$

$284$
$28$
$-312$

$847$
$-312$
$535$