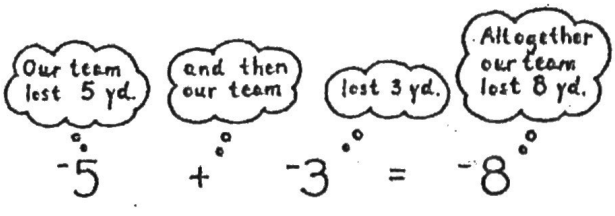
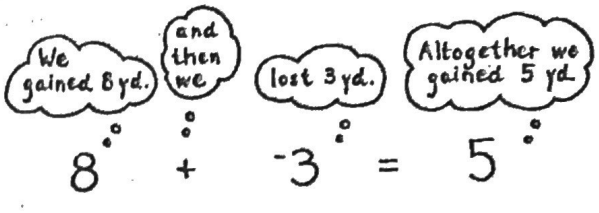
Notes #2 Adding Integers Name: _____

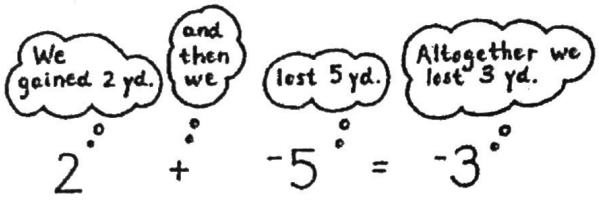
To add integers we can think of a football game. A positive number stands for ground gained by our team; a negative number shows ground lost. Zero is used when there is no gain or loss. Here are some examples:

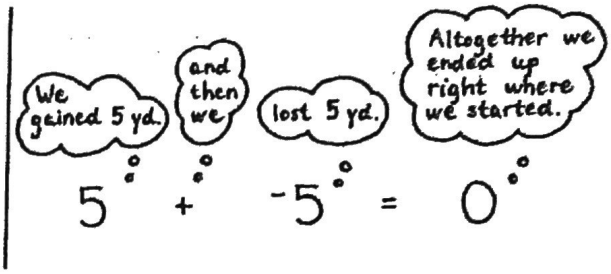




1) $-12 + (-5) =$

2) $12 + (-5) =$

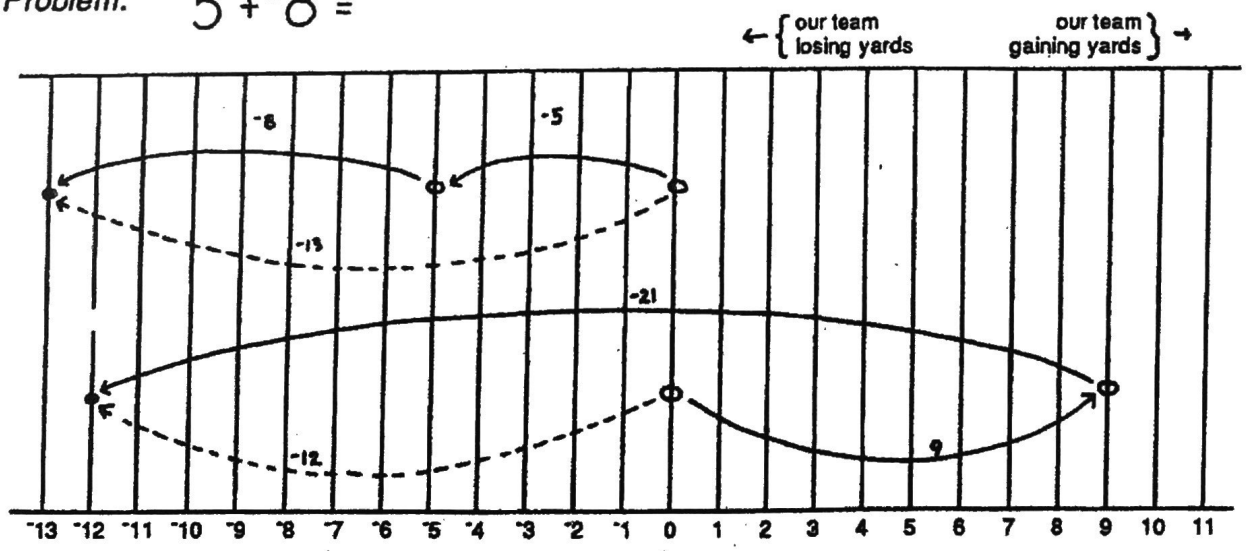




3) $5 + (-12) =$

4) $-12 + 12 =$

Problem: $-5 + -8 =$

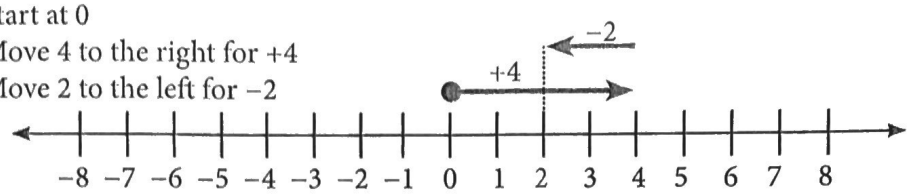


Problem: $9 + -21 =$

Number lines are another way to model integer addition. Look at these integer sums on a number line:

Find the value of 4 + (−2) using a number line.

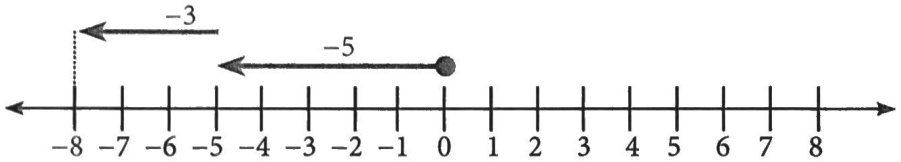
- Start at 0
- Move 4 to the right for +4
- Move 2 to the left for −2



so, 4 + (−2) =

Find the value of −5 + (−3) using a number line.

- Start at 0
- Move 5 to the left for −5
- Move 3 to the left for −3



so, −5 + (−3) =

Determine the sign of the answer:

- **If both integers are positive, the sum is positive.** + + = +
- **If both integers are negative, the sum is negative.** − + − = −
- **If one integer is negative and the other is positive, the sum is the sign of the number with the greater absolute value.**

+ + − = ?

Same Sign:

1) −3 + (−5) =

2) 3 + 5 =

3) 6 + 4 =

4) −6 + (−4) =

5) 15 + 15 =

6) −15 + (−15) =

Different Signs:

7) $13 + (-4) =$

8) $8 + (-9) =$

9) $-8 + 2 =$

10) $-3 + 5 =$

11) $7 + (-7) =$

12) $-14 + 6 =$

Solve:

13) $-36 + 36 =$

14) $13 + (-13) =$

15) $-6 + (-6) =$

16) $10 + (-20) =$

17) $-4 + (-2) =$

18) $-8 + 16 =$

19) $6 + (-13) + 8 =$

20) $-12 + 25 + (-3) =$

21) Maria is in a two-day golf tournament. She scored –3 on the first day. On the second day, her score is –5. What is her overall score for the entire tournament?

22) Ishmael's stock went up $17 on Thursday and then down $13 on Friday. What was the total change in the value of the stock?