Name _____ Class Period _____

Rules for Dividing Integers

Julia said that "-36 ÷ 9 = 4". Jonah disagreed with her and explained his reasoning this way:

1. To undo the division problem (-36 ÷ 9 = 4), Julia would have to multiply 9 • 4 and get -36.

   That doesn't work.

2. So based on that, -36 ÷ 9 = -4

Julia asked: "How about the answer to 36 ÷ -9?"

3. What do you think the answer to Julia's question should be? _____

In general, to divide integers, follow the same rules for multiplying integers.

(+) ÷ (+) = +	(+) ÷ (–) = –
(–) ÷ (–) = +	(–) ÷ (+) = –

4. Lila is $20 in debt. Her three friends offered to help her by distributing her debt evenly among the four of them. Write Lila's debt as an integer, then write and solve a problem to show the integer that represents each person's debt now.

5. How many groups of "-2" are in "-34"? Write and solve a problem.

6. -18 ÷ 9 = _____

7. -51 ÷ (-17) = _____

8. 160 ÷ (-20) = _____

9. (-15) ÷ (-15) = _____

10. (-1) ÷ (-1) ÷ (-1) = _____

11. -100 ÷ 25 ÷ (-4) = _____

12. 20 ÷ (-2) ÷ (-2) = _____

13. (-18) ÷ (-6) • (-2) = _____

14. (-81) ÷ (-9) • 3 = _____

15. 70 ÷ 2 ÷ (-1) = _____