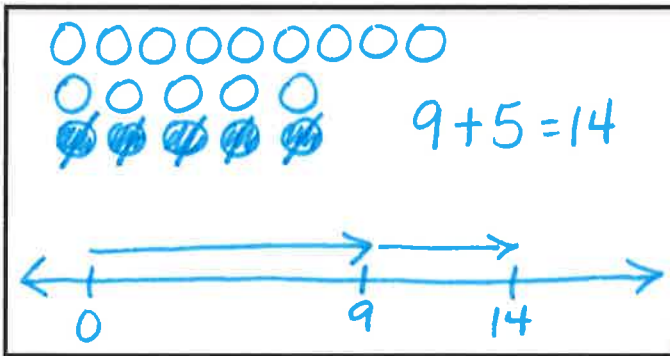


Name Key Period _____ Tuesday, October 10, 2017

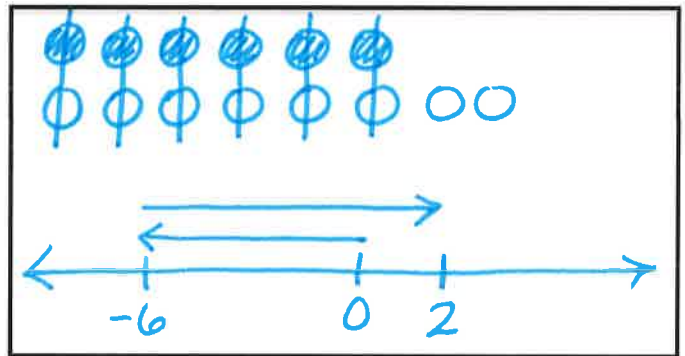
Unit 3 Advanced Review - Integers

Solve the following problems. You may use your positive and negative integer counters or a number line. If you use integer counters then you must have a key.

1. $9 - (-5) = \underline{14}$

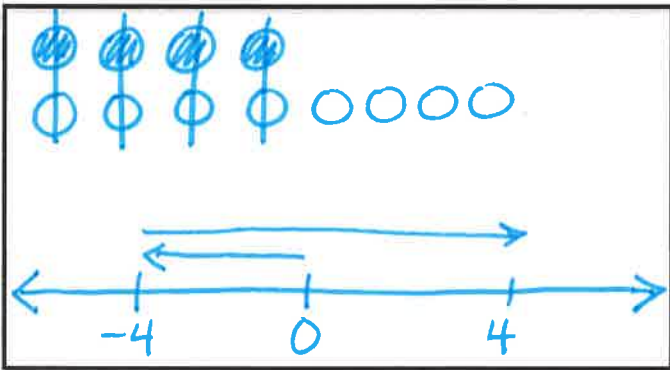


2. $-6 + 8 = \underline{2}$

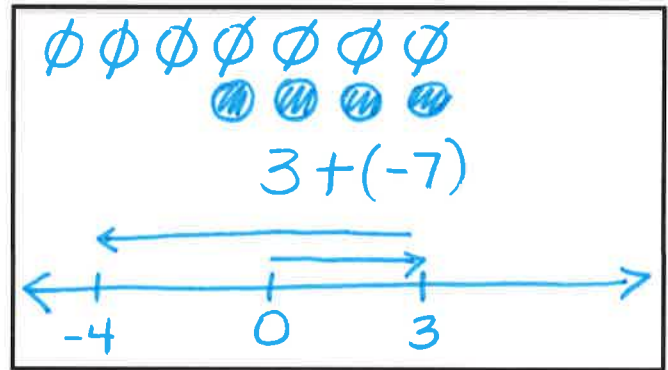


Key
O = pos ● = neg

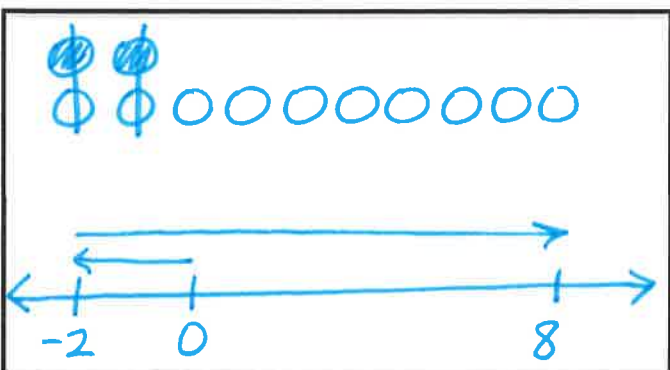
3. $-4 + 8 = \underline{4}$



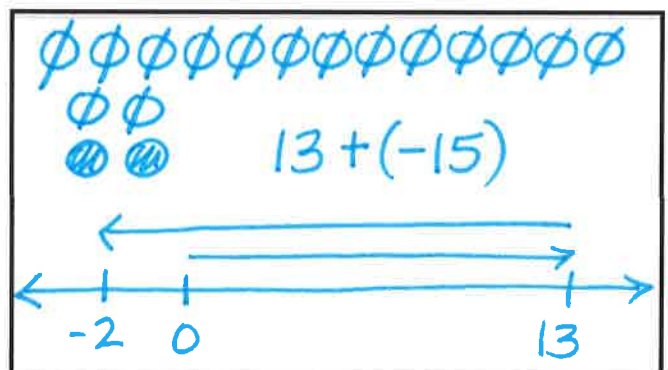
4. $3 - 7 = \underline{-4}$



5. $-2 + 10 = \underline{8}$

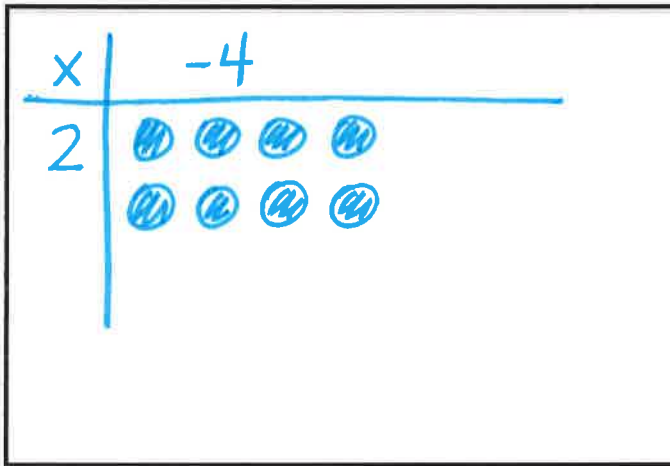


6. $13 - 15 = \underline{-2}$

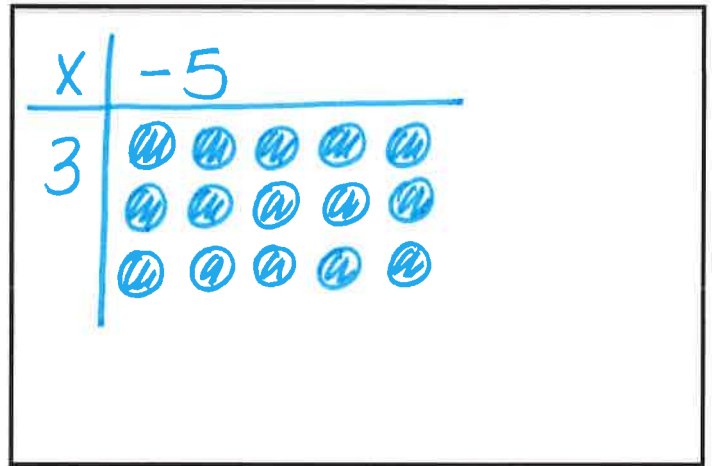


Draw models to represent the following problems and then solve the problems.

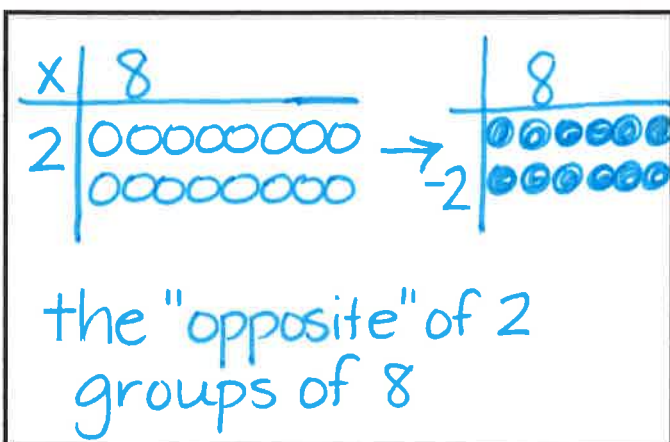
7. $2 \times -4 = \underline{-8}$



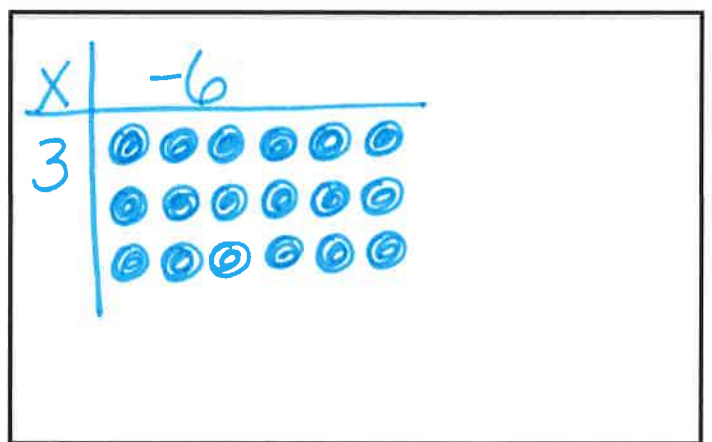
8. $3(-5) = \underline{-15}$



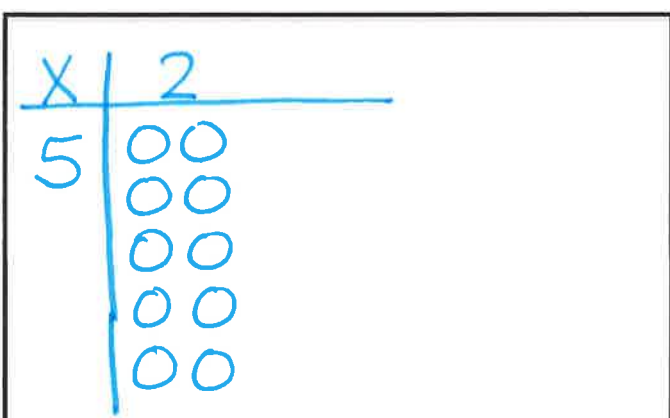
9. $-2 \times 8 = \underline{-16}$



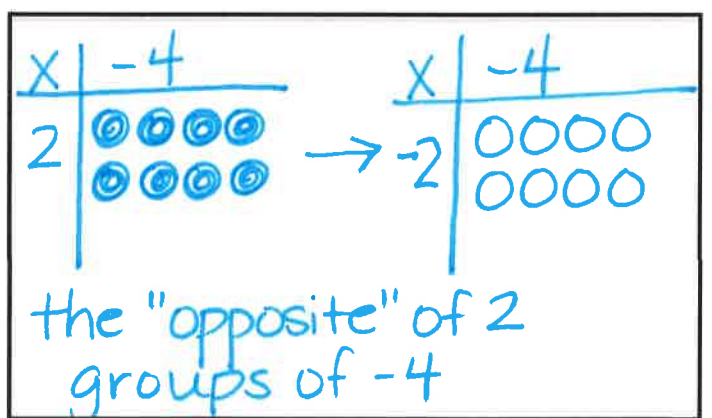
10. $3(-6) = \underline{-18}$



11. $5 \times 2 = \underline{10}$



12. $-2(-4) = \underline{8}$



Solve the following problems.

13. $29 + (-20) = \underline{9}$

14. $-67 + (-18) = \underline{-85}$

15. $-49 - 27 = \underline{-76}$
 $-49 + (-27)$

16. $-72 \div 18 = \underline{-4}$

17. $56 \div -7 = \underline{-8}$

18. $-12 \times 4 = \underline{-48}$

19. $-12(-15) = \underline{180}$

20. $(-23) - (-6) + (-5) = \underline{-22}$

$-23 + 6 = -17 + (-5)$

21. $27 - (-3) + 29 = \underline{59}$

$27 + 3 = 30 + 29$

22. $(-17) - (-9) - (-4) = \underline{-4}$

$-17 + 9 = -8 + 4$

23. $27 - (-5) + 19 = \underline{51}$

$27 + 5 = 32 + 19$

24. $(-11) - (-7) + 5 = \underline{1}$

$-11 + 7 = -4 + 5$

25. $-14(-20) = \underline{280}$

26. $56 \div -14 = \underline{-4}$

True or False

27. false When adding integers and the signs are the ~~same~~^{different}, you subtract and keep the sign of the number with the greater absolute value.

28. true The rules for multiplying and dividing integers are the same.

29. true When dividing integers, two negative numbers will always have a positive answer.

30. false When multiplying integers, a positive and negative number will have ~~the sign of the larger number~~^{be positive}.

31. true When adding integers, like signs are added and you keep that sign for your answer.

Write an equation and find the solution of each of the problems below. Be careful to pay attention to any directions that require a certain operation.

32. Suppose the temperature outside is 22 degrees and is dropping 3 degrees each hour. How much will the temperature change in 8 hours? What will the temperature be after 8 hours?

$$3 \times (-8) = -24^{\circ}$$

$$22 + (-24) = -2^{\circ}$$

33. A football team ⁻⁹lost 9 yards on each of three consecutive plays. Write a **multiplication equation** that represents the team's total change in position for the three plays.

$$-9 \times 3 = -27 \text{ yards}$$

34. A local bookstore had 30 copies of a bestseller when it opened Monday morning. On Monday, 6 copies of the book were sold. On Tuesday, 3 copies were sold. On Wednesday, the bookstore received a shipment containing 24 copies of the book and also 8 copies were sold. Write an **addition equation** that represents the number of copies of the book that bookstore has at the end of the day on Wednesday.

$$30 + (-6) + (-3) + 24 + (-8) = 37 \text{ copies}$$

35. The length of an island is changing at the average rate of -17 inches per year. How long will it take for the change in the length of the island to be negative 255 inches? Write a **division equation** that represents this situation.

$$-255 \div (-17) = 15 \text{ years}$$