Name_____Date_____Per._____

Unit 1: Operations with Rational Numbers Study Guide

1. How do you know if the sum of two rational numbers will be positive or negative?

2. What is an additive inverse? Give an example.

3. Give an example of a real life problem involving negative numbers.

4. What is absolute value?

5. (-9) – (-5) =

6. (-5)(-2)(6) =

7. (-48) ÷ (12) =

8. (-6.7) + (-3.2) + (7.8) =

9. (-14) – (7.4)

10. (-5)(6 - 9)

11. $2\frac{1}{3} \div \frac{1}{8} =$

12. Convert to a decimal: $\frac{4}{15}$

13. Convert to a fraction: $0.\overline{8}$

14. If x represents a negative number is x^2 positive or negative?

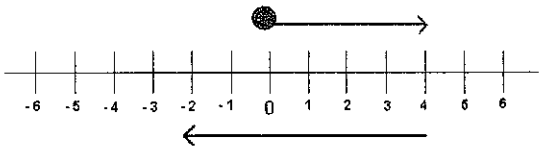
15. If x represents a negative number, is $x \cdot x \cdot x \cdot x$ a positive or negative number?

16. A hot air balloon 450 feet above the ground descends 100 feet before ascending another 275 feet. Describe the location of the hot air balloon.

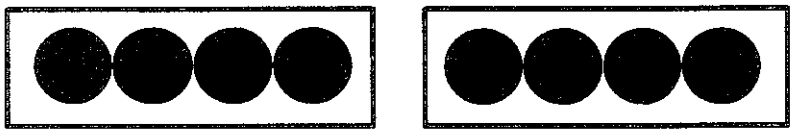
17. Find two integers with a product of -30 and sum of -1.

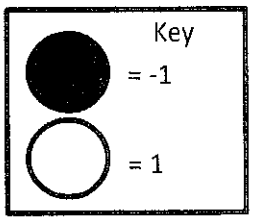
18. The temperature at 8 am was 15°F. The temperature dropped 3 degrees per hour for the next 6 hours. What was the temperature at 2 pm?

19. Which expression is represented by the model below?



20. Write an expression represe..... , the model below?





21. When the following fractions are converted to decimals, which results in a repeating decimal?

a. $\frac{2}{5}$ b. $\frac{5}{8}$ c. $\frac{2}{3}$ d. $\frac{3}{8}$

22. You want to buy an I-Pad but you don't have enough money for it. Best Buy lists the I pad 2 for $399. You have $75 in your savings account and get another $100 as a birthday gift from your parents. You babysat the neighbor's kids last night for 5 hours at $6.50 an hour plus a tip of $4. You a find a job walking dogs for $25 a week. After 2 weeks, do you have enough to purchase the I-Pad?