End of Semester Exam REVIEW – Chapter 1 – 4

Name: _____ Period : _____ Date:_____

_____ 1. What is the absolute value? $|-15|$

_____ 2. Solve. $-2 + 7 + (-6)$

_____ 3. When a = -10 and b = -6, which expression has a value of -4?

a. $a + b$ c. $a - b$
b. $|a + b|$ d. $|a - b|$

_____ 4. The temperature is -8°F at 7am. During the next 3 hours, it increases 20°F. What is the temperature at 10am?

_____ 5. Solve. $-5 - 13$

_____ 6. Solve. $16 - 28$

_____ 7. Solve. $-14 - 8$

_____ 8. Solve for b. $9b + 15 = 57$

_____ 9. What makes a graph proportional?

_____ 10. Evaluate the expression. $0.7^2 \div |9.7 - 6.2|$

_____ 11. Solve. $-8 \cdot 5$

_____ 12. $-4 \cdot (-13)$

_____ 13. $\frac{3}{4} \cdot \frac{-1}{6}$

_____ 14. Solve. $-24 \div -4$

_____ 15. Solve. $\frac{3}{4} \div \frac{1}{4}$

_____ 16. Write the rational number as a decimal. $\frac{8}{9}$

_____ 17. Write the rational number as a decimal. $\frac{-4}{12}$

_____ 18. Write the decimal as a fraction. 0.35

_____ 19. Find the sum. $-2\frac{1}{3} + 3\frac{2}{3}$

_____ 20. Find the sum. $2x + y$ when $x = \frac{1}{4}$ and $y = \frac{-1}{2}$

_____ 21. Complete the statement using $<$, $>$, or $=$.   -7.08 _____ -7.09

   a. $<$ b. $=$ c. $>$

_____ 22. Complete the statement using $<$, $>$, or $=$.   1.5 _____ $\frac{2}{3}$

   a. $>$ b. $=$ c. $<$

_____ 23. Solve. $0.15 + 5.8$

_____ 24. " Flipping" the fraction upside down is called what?

   a.   Additive inverse   c. Inverse
   b.   Reciprocal   d. Multiplying the fraction

_____ 25. Simplify the expression. (Combine like terms.) $5u - 2u + 8$

_____ 26. Simplify the expression. (Combine like terms.) $(2b - 4) - (-5b + 9)$

_____ 27. Solve the equation. $-7 = x - 21$

_____ 28. Solve. $-\frac{1}{3}\, c = 5$

_____ 29. Solve. $2t = -12$

_____ 30. A 2-month membership to the gym costs $125. Jim would like to be a member for 8 months. What is the total amount he will pay?

_____ 31. There are 400 people at a play. The ratio of males to females is 1 : 4. Find the number of females.

_____ 32. Solve and graph the inequality. $x - 5 > 11$

_____ 33. Solve and graph the inequality. $\frac{b}{4} > -12$

_____ 34. Solve and graph the inequality. $5c \leq -30$

_____ 35. Write the ratio as a fraction in simplest form.   27 even: 15 odd

_____ 36. Find the unit rate.   380 miles in 4 hours
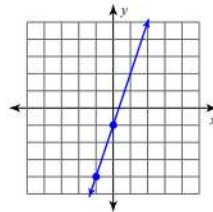
_____ 37. Solve for y. $-7(y – 4) = -32$

_____ 38. Solve the proportion. $\frac{7}{5} = \frac{a}{15}$

_____ 39. Solve the proportion. $\frac{d}{8} = \frac{73}{4}$

_____ 40. Write and proportion and solve.

   48 cupcakes are packaged in 4 boxes. How many cupcakes are packaged in 9 boxes?

_____ 41. Find the constant of proportionality from the graph.

_____ 42. Simplify. Write your answer using exponents. $3^3 \cdot 3^1$

x	y

_____ 43. Find the constant from the table given.

-3	-15
-4	-20
3	15
1	5

_____ 44. Write the product using exponents. $4 \cdot 4 \cdot 5 \cdot 5 \cdot 5$

_____ 45. Simplify using the distributive property. $7x - 6(-4x + 2)$

_____ 46. Tell whether the rates are equivalent. 4 inches to 2.5 years

1 foot in 7.5 years

_____ 47. You have $60 to buy t-shirts. You can buy 3 t-shirts for $24. Do you have enough money to buy 7 t-shirts?

_____ 48. The distance from zero on a number line and the answer is always positive

a. Opposite number   c. Distributive Property
b. Absolute value   d. Reciprocal

_____ 49. Evaluate. 12^2

_____ 50. The table shows the relationship between the number of miles traveled, and the gallons of gas used, y. Write an equation that best represents the relationship.

x	5	10	15	20	25
y	1	2	3	4	5