

Unit 1 Review – Test is Friday, August 21st

What you need to know & be able to do	Things to remember	Examples	
1. Algebraic expressions	<ul style="list-style-type: none"> Identify Parts of an expression Variable Constant Term coefficient 	1. Identify the: Variables: Constants: $32x^2 - 8x + 4y - 9$	2. Identify the: Terms: Coefficients: $24x^2 + 5x - 7$
2. Creating Algebraic Expressions	<ul style="list-style-type: none"> Remember to look for key words 	3. Create an expression for "four less than three times a number"	4. Write 2 verbal descriptions of $\frac{n}{5}$
3. Simplify algebraic expressions	<ul style="list-style-type: none"> Use key words to create algebraic expression from word problems. Simplify algebraic expressions 	5. Simplify $15x + 5(2x - 4) - 11$	6. Simplify $5x^2 - 3x + 4 - 3 + 8x$
4. Solving One Step Equations	<ul style="list-style-type: none"> Use Inverse operations 	7. Solve $5 + m = 2$	8. Solve $\frac{x}{-7} = 3$
5. Solving Two Step Equations	<ul style="list-style-type: none"> Use Inverse operations 	9. Solve $\frac{x}{6} + 4 = 15$	10. Solve $\frac{x - 4}{3} = -6$
6. Solving Multi-Step Equations	<ul style="list-style-type: none"> Use Inverse operations 	11. Solve $-5(3 + x) + 25 = 15$	12. Solve $3x - 6 = 12 - 3x$

7. Isolating a Variable	<ul style="list-style-type: none"> Using the properties of equalities solve an equation with more than one variable for a chosen variable. 	13. Solve the equation for d $a = \frac{cd}{f}$	14. Solve for y: $8x - 4y = 16$
8. Solve Linear Inequalities.	<ul style="list-style-type: none"> Solve an inequality by isolating the variable. <p>Hint: Dividing by a negative number flips the inequality.</p>	15. Solve $3(x + 2) < -2$	16. Solve and name 3 solutions $7 - 2t \leq 21$
9. Creating Expressions	<ul style="list-style-type: none"> Define the variable for the quantity that is always changing 	17. Lucy gets paid \$150 a week and \$10 for every computer she sells. Write an expression that represents her weekly income.	18. Andy wants to mail a package. It costs \$4.99 plus \$0.30 for every ounce the package weighs. Write an expressions that represents the total cost of shipping the package.
10. Creating Equations and Inequalities	<ul style="list-style-type: none"> Define a variable for what you are solving for Look for key words Consecutive Integers: x, x + 1, x + 2, ... Consecutive Even/Odd Integers: x, x + 2, x + 4, ... 	19. Alex belongs to a music club. In this club, students can buy a student discount card for \$19.95. This card allows them to buy CDs for \$3.95 each. After one year, Alex has spent \$63.40. How many cds did Alex buy?	20. Cecilia has \$30 dollars to spend at a carnival. Admission costs \$5 and each ride ticket costs \$1.50. What is the maximum amount of tickets she can purchase?
		21. Three consecutive integers add up to 153. Find the three integers.	22. Three ODD integers add up to 381. Find the integers.

11. Creating Compound Inequalities	<ul style="list-style-type: none"> • Look for key words that indicate if values are included 	23. An iguana needs an environment between 70 degrees and 95 degrees. Write a compound inequality.	24. Water is not a liquid when it is less than 0 degrees Celsius or above 100 degrees Celsius. Write a compound inequality.
12. Dimensional Analysis	<ul style="list-style-type: none"> • KHDUDCM 	25. Convert 12 pints to gallons.	26. Convert 5 miles to feet.
		27. Convert 1500 cg to hg.	28. Convert 10 km to mm.
13. Dimensional Analysis Applications	<ul style="list-style-type: none"> • KHDUDCM • Create a plan 	29. Sarah ran a 10 meter race. How many feet is that? (1 in = 2.54 cm)	30. A bowl of cereal weighs 60 oz. How heavy is it in kg? (1 oz = 28.3 g)