**Show all work needed to answer each question. Put your final answer in the box. Good luck 😊**

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| 1. Which is the smallest set of real numbers that contains the value below?$$-\frac{18}{6}$$A. Irrational NumbersB. Rational NumbersC. Natural NumbersD. Integers | 2. Which set contains the value below?$$\sqrt{50}$$A. Irrational NumbersB. Natural NumbersC. Rational NumbersD. Integers |
| 3. The set below only contains which types of numbers?$$\left\{-1, 5, \frac{1}{2}, 15, 3.75, 36, \sqrt{81}, 100\right\}$$A. Irrational NumbersB. Rational NumbersC. IntegersD. Natural Numbers | 4. Select all sets to which the value below belongs. Real Numbers$ \sqrt{2}-\sqrt{2}$ Irrational Numbers Rational Numbers Integers Whole Numbers Natural Numbers |
| 5. Which of the following is *true* regarding number sets?A. All integers are whole numbers.B. All irrational numbers are real numbersC. All real numbers are integers.D. All rational numbers are natural numbers.  | 6. Which property justifies the statement below?$$x\left(y-3\right)=xy-3x$$A. Associative PropertyB. Transitive PropertyC. Distributive PropertyD. Commutative Property |

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| 7. Simplify the expression below:$$\frac{\left(3-13\right)^{2}+14}{4^{2}-5∙2}$$ | 8. Evaluate the expression below if $a=-8$, $b=17$, and $c=21$.$$a^{2}-(b+c)$$  |
| 9. Evaluate the expression below if $x=-1$ and $y=3$.$$3x^{2}-y^{2}$$ | 10. Evaluate the expression below if $a=8$ and$b=-5$.$$\left|a\right|-\left|b\right|$$ |
| 11. Translate the statement below:**“One less than twice a number.”**A. $1-n^{2}$B. $n^{2}-1$C. $1-2n$D. $2n-1$  | 12. Translate the statement below:**“Five times the difference of a number and 3 is 17.”**A. $5n-3=17$ B. $5\left(n-3\right)=17$ C. $\frac{5n}{3}=17$ D. $5\left(\frac{n}{3}\right)=17$  |
| 13. Translate the statement below:**“A number is no more than 50.”**A. $x<50$ B. $x\leq 50$ C. $x>50$ D. $x\geq 50$  | 14. Translate the statement below:**“Your grade must be at least 70 to pass this class.”**A. $g<70$ B. $g\leq 70$ C. $g>70$ D. $g\geq 70$  |

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| 15. Simplify the expression below:$$2m-16+5m+45$$A. $7m+29$ B. $7m+61$C. $-3m+29$ D. $-3m+61$  | 16. Simplify the expression below:$$2x-4y+6+3x-9y-4$$A. $5x+13y+2$ B. $5x-13y+2$ C. $5x-5y+2$ D. $-8xy+2$  |
| 17. Simplify the expression below completely.$$10-4(2x+7)$$ | 18. Simplify the expression below completely.$$4\left(5w-3\right)-(w-1)$$ |
| 19. Give the perimeter of the rectangle below in simplest form. $x+2$$$3x-7$$ | 20. Identify the first step to solve the equation below:$$\frac{x}{-4}+7=-1$$A. Add 4B. Subtract 7C. Multiply by $-4$D. Add 1 |
| 21. Solve the equation below:$$5x+1=-49$$ | 22. Solve the equation below:$$\frac{2}{3}x-5=7$$ |