1.2

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| --- | --- | --- | --- |
| Solve an equation. | Use INVERSE operations!\*ALWAYS plug your answer back in to check your work. | 1. Solve for x: $$2\left(x+3\right)-4=10+3x$$ | 2. Solve for b: $$35=3b+8$$ |
| 3. Solve for r: $$\frac{2r-13}{5}=7$$ | 4. Solve for x: $$11 + 3x– 7 = 6\left(x + 5\right) – 3x $$ |
| Solve an inequality. | Use INVERSE operations!“Flip” the inequality sign when you multiply or divide by a negative. | 5. Solve for y: $$-2\left(3y-8\right)>10$$ | 6. Solve for k: $$\frac{2k-3}{-5}>7$$ |
| 7. Solve for x: $$10(x-5)\leq 5(2x+10)$$ | 8. Solve for z:   |
| Isolate a variable. | “Get the variable by itself”! | 9. $a\left(x+b\right)=c$; Solve for x. | 10. $F=\left(\frac{9}{5}\right)C+32$; Solve for C. |
| Use formulas that have been solved for an indicated variable. | “Get the variable by itself”!Substitute the given values into your new equation. | 11. $V=lwh$; Solve for h. | 12. Using your equation from question 21. Find the height of a rectangular prism with a volume of 80 in3, a length of 4 and a width of 2. |
| Create and solve an equation. | Define your variable FIRST!Make sure that your answer is “reasonable”. | 13. Tia spent $15 on skating. This included a $5 charge for renting skates and a $2.50 per hour fee for skating. Determine the number of hours that Tia spent skating. | 14. Find three consecutive integers whose sum is 381. |
| Create and solve an inequality. | Define your variable FIRST!Make sure that your answer is “reasonable”. | 15. Your quiz grades are 78, 68, 71, 85 and 90. What score on the sixth quiz will make your average quiz grade at least 80? | 16 It cost $5 to have a tote bag monogrammed with up to 12 letters and $0.50 for each additional letter. A club has a budget of $8.00 maximum per tote bag. What is the maximum number of additional letters that the club can have monogrammed on a tote bag?  |

**Solving Equations and Inequalities:**

**Solve the following equations:**

17. 15x - 24 - 4x = -79  18. 

19. 3(2x - 5) - 4x = 33 20. 3x - 25 = 11x - 5 + 2x

**Solve each inequality. Then check your solution.**

21. 3x – 9 ≤ 2x + 6 22. 3(r - 2) < 2r + 4 23. 