

## Two-Step Equation Word Problems

- 1) 331 students went on a field trip. Six buses were filled and 7 students traveled in cars. How many students were in each bus?

$$\boxed{6b + 7} = 331$$

$$\begin{array}{r} -7 \\ -7 \end{array}$$

$$6b = 324$$

$$\div 6 \quad \div 6$$

$$\boxed{b = 54}$$

- 3) The sum of three consecutive numbers is 72. What are the smallest of these numbers?

$$(x) + (x+1) + (x+2) = 72$$

$$3x + 3 = 72$$

$$\begin{array}{r} -3 \\ -3 \end{array}$$

$$3x = 69$$

$$\boxed{x = 23}$$

- 5) You bought a magazine for \$5 and four erasers. You spent a total of \$25. How much did each eraser cost?

$$4e + 5 = 25$$

$$\begin{array}{r} -5 \\ -5 \end{array}$$

$$4e = 20$$

$$\div 4 \quad \div 4$$

$$\boxed{e = \$5}$$

- 7) Sumalee won 40 super bouncy balls playing horseshoes at her school's game night. Later, she gave two to each of her friends. She only has 8 remaining. How many friends does she have?

$$40 - 2x = 8$$

$$\begin{array}{r} -40 \\ -40 \end{array}$$

$$-2x = -32$$

$$\div -2 \quad \div -2$$

$$\boxed{x = 16}$$

- 2) Aliyah had \$24 to spend on seven pencils. After buying them she had \$10. How much did each pencil cost?

$$7p + 10 = 24$$

$$\begin{array}{r} -10 \\ -10 \end{array}$$

$$7p = 14$$

$$\div 7 \quad \div 7$$

$$\boxed{p = \$2}$$

- 4) The sum of three consecutive even numbers is 48. What are the smallest of these numbers?

$$(x) + (x+2) + (x+4) = 48$$

$$3x + 6 = 48$$

$$\begin{array}{r} -6 \\ -6 \end{array}$$

$$3x = 42$$

$$\boxed{x = 14}$$

- 6) Maria bought seven boxes. A week later half of all her boxes were destroyed in a fire. There are now only 22 boxes left. With how many did she start?

$$\frac{(x+7)}{2} = 22 \times 2$$

$$2 \times 2$$

$$x+7 = 44$$

$$\begin{array}{r} -7 \\ -7 \end{array}$$

$$\boxed{x = 37}$$

- 8) Imani spent half of her weekly allowance playing mini-golf. To earn more money her parents let her wash the car for \$4. What is her weekly allowance if she ended with \$12?

$$\frac{x}{2} + 4 = 12$$

$$\begin{array}{r} -4 \\ -4 \end{array}$$

$$\frac{x}{2} = 8$$

$$\times 2 \quad \times 2$$

$$\boxed{x = \$16}$$

9) Aliyah had some candy to give to her four children. She first took ten pieces for herself and then evenly divided the rest among her children. Each child received two pieces. With how many pieces did she start?

$$\frac{(x-10)}{4 \times 4} = 2 \times 4$$

$$x-10 = 8$$

$$+10 \quad +10$$

$$\boxed{x = 18}$$

10) How old am I if 400 reduced by 2 times my age is 244?

$$400 - 2x = 244$$

$$-400 \quad -400$$

$$-2x = -156$$

$$\div -2 \quad \div -2$$

$$\boxed{x = 78}$$

11) Jill sold half of her comic books and then bought sixteen more. She now has 36. With how many did she begin?

$$\frac{x}{2} + 16 = 36$$

$$-16 \quad -16$$

$$\frac{x}{2} \times 2 = 20 \times 2$$

$$\boxed{x = 40}$$

12) For a field trip 4 students rode in cars and the rest filled nine buses. How many students were in each bus if 472 students were on the trip?

$$9b + 4 = 472$$

$$-4 \quad -4$$

$$9b = 468$$

$$\div 9 \quad \div 9$$

$$\boxed{b = 52}$$

13) On Tuesday Shanice bought five hats. On Wednesday half of all the hats that she had were destroyed. On Thursday there were only 17 left. How many did she have on Monday?

$$\frac{x+5}{2 \times 2} = 17$$

$$\times 2 \quad \times 2$$

$$x+5 = 34$$

$$-5 \quad -5$$

$$\boxed{x = 29}$$

14) The Cooking Club made some pies to sell at a basketball game to raise money for the new math books. The cafeteria contributed four pies to the sale. Each pie was then cut into five pieces and sold. There were a total of 60 pieces to sell. How many pies did the club make?

$$5(4 + x) = 60$$

$$20 + 5x = 60$$

$$-20 \quad -20$$

$$5x = 40$$

$$\div 5 \quad \div 5$$

$$\boxed{x = 8}$$