



Name: _____

Date: _____

Algebra 1 – Unit 2 – Linear Equation Word Problems (Challenge)

Read each word problem carefully. Write an equation and solve for x . Show your work.

1. Maria saves $\$x$ per month. She already has $\$27$ in her savings account. After 32 months of saving, she will have $\$126$. How much does she save per month?

Equation: _____

Solution: _____

2. Emma is reading a book with 72 pages. She read 2 pages on Saturday and 3 pages on Sunday. She has 67 pages left to read. How many pages are left?

Equation: _____

Solution: _____

3. A farm has chickens and cows. There are x chickens. The number of cows is 5 less than the chickens. Together, there are 55 animals. How many chickens are there?

Equation: _____

Solution: _____

4. A store had x shirts. On Monday, they sold 33 shirts. On Tuesday, they received a shipment of 40 more shirts. Now they have 149 shirts. How many shirts did they start with?

Equation: _____

Solution: _____

5. Tom has x dollars. He spent 4 dollars on lunch and 8 dollars on a book. His friend gave him $\$8$. Now he has $\$74$. How much money did Tom start with?

Equation: _____ freshmath.org

Solution: _____



bra 1 – Unit 2 – Linear Equation Word Problems (Challenge) – Answer

1. Maria saves \$ x per month. She already has \$27 in her savings account. After 32 months of saving, she will have \$126. How much does she save per month?

Equation: $x - 27 + 32 = 126$

Solution: $x = 121$

2. Emma is reading a book with 72 pages. She read 2 pages on Saturday and 3 pages on Sunday. She has 67 pages left to read. How many pages are left?

Equation: $x - 2 - 3 = 67$

Solution: $x = 72$

3. A farm has chickens and cows. There are x chickens. The number of cows is 5 less than the chickens. Together, there are 55 animals. How many chickens are there?

Equation: $x - 5 - 4 = 46$

Solution: $x = 55$

4. A store had x shirts. On Monday, they sold 33 shirts. On Tuesday, they received a shipment of 40 more shirts. Now they have 149 shirts. How many shirts did they start with?

Equation: $x - 33 + 40 = 149$

Solution: $x = 142$

5. Tom has x dollars. He spent 4 dollars on lunch and 8 dollars on a book. His friend gave him \$8. Now he has \$74. How much money did Tom start with?

Equation: $x - 4 - 8 = 62$

Solution: $x = 74$

6. Emma is reading a book with 59 pages. She read 10 pages on Saturday and 2 pages on Sunday. She has 47 pages left to read. How many pages are left?

Equation: $x - 10 - 2 = 47$

Solution: $x = 59$

7. A bakery makes cookies. They start with x cookies in the morning. They sell 5 cookies in the morning and 20 cookies in the afternoon. Then they bake 3 more cookies. Now they have 125 cookies. How many cookies did they start with?

Equation: $5x + 20 \cdot 3 = 125$

Solution: $x = 13$

8. A school has x students. 41 students joined the school this year, and 18 students left. Now the school has 59 students. How many students were there originally?

Equation: $x - 41 + 18 = 59$

Solution: $x = 82$