

Homework 1.5 Variables in Algebra & Translating Words into Mathematical Symbols

Translate words into Algebraic Expressions.

1. The sum of a and b

2. The difference between x and 7.

3. The product of 7 and y

4. The quotient of 7 and x.

5. The quotient of 3x and 7 minus y

6. The sum of 7 times a number and 10

7. Ruben is tracking the progress of his plant's growth. Today the plant is 5cm high. The plant grows 1.5 per day.

8. Anthony is on a diet. He currently weighs 260 pounds. He loses 4 pounds per day.

9. Junior opens a savings account with \$350. He saves \$150 per month.

10. The population of Bay Village is 35,000 today. Each year the population of Bay Village increases by 750 people.

11. LeeJay has \$25,000 in his bank account. Every month he spends \$1,500.

12. A cell phone plan costs \$30 per month for unlimited calling plus \$0.15 per text message.

13. Jadyn walks at a rate of 3 miles per hour. She runs at a rate of 6 miles per hour. In one week, the combined distance that she walks and runs is 210 miles.

14. Elana has x books that weigh 2 pounds each and y books that weigh 3 pounds each. The total weight of her books is 60 pounds.

15. Ryan sells lemonade for \$2 per cup and candy for \$1.50 per bar. He earns \$425 selling lemonade and candy.

Find the number.

16. When six is added to four times a number, the result is 50. Find the number.

17. The sum of a number and 9 is multiplied by number negative 2. The answer is negative 8. Find the number.

18. On an algebra test, the highest grade was 42 points higher than the lowest grade. The sum of the two grades was 138. Find the lowest grade.

19. Karen drove twice as far a Valentine. Altogether they drove 90 miles. Find the number of miles driven by each.

20. Alexandria spends \$60 on cat supplies and makes \$50 an hour at work. How many hours did she need to work if she totaled \$290 at work?

1.5 Answers

1 $a + b$ 2 $x - 7$ 3 $7y$ 4 $\frac{z}{y}$ 5 $3x - 7y$ 6 $7x + 10$ 7 $5 + 1.5d$ 8 $260 - 4p$ 9 $\$350 + \$150m$

10 $35,000 + 750p$ 11 $\$25,000 - \$1500m$ 12 $\$30c + \$0.15t$ 13 $3w + 6r = 210$ 14 $2w + 3y = 60$

15 $2l + 1.50c = \$425$ 16 11 17 12 18 48 19 Valentine drove 30 miles, Karen drove 60 miles

20 7 hours