Math 8IB   Name_____ ID: 1

Using Equations to Solve Word Problems

For each problem: 1) Define the unknown with a "Let" statement 2) Write the equation that models this situation 3) Solve the equation 4) Answer the question in a complete sentence

1) Trevon had some paper with which to make note cards. On his way to his room he found three more pieces to use. In his room he cut each piece of paper in half. When he was done he had 16 half-pieces of paper. With how many sheets of paper did he start?

2) You bought a magazine for $3 and three candy bars. You spent a total of $9. How much did each candy bar cost?

3) Half of your baseball card collection got wet and was ruined. You bought 16 cards to replace some that were lost. How many did you begin with if you now have 26?

4) The Cooking Club made some pies to sell during lunch to raise money for a field trip. The cafeteria helped by donating two pies to the club. Each pie was then cut into five pieces and sold. There were a total of 55 pieces to sell. How many pies did the club make?

5) Half of your baseball card collection got wet and was ruined. You bought 16 cards to replace some that were lost. How many did you begin with if you now have 33?

6) Kim rented a bike from Stefan's Bikes. It cost $10 plus $2 per hour. If Kim paid $20, then she rented the bike for how many hours?

7) For a field trip 16 students rode in cars and the rest filled five buses. How many students were in each bus if 151 students were on the trip?

8) Ted won 77 super bouncy balls playing hoops at the county fair. At school he gave four to every student in his math class. He only has 5 remaining. How many students are in his class?

9) You had $22 to spend on six notebooks. After buying them you had $4. How much did each notebook cost?

10) Mofor spent $10 on a magazine and four candy bars. If the magazine cost $2, then how much was each candy bar?

11) Darryl won 102 super bouncy balls playing the bean bag toss at his school's game night. Later, he gave four to each of his friends. He only has 6 remaining. How many friends does he have?

12) Dan wanted to make note cards by cutting pieces of paper in half. Before starting he got four more pieces to use. When he was done he had 26 half-pieces of paper. With how many pieces did he start?

13) The sum of three consecutive even numbers is 84. What is the smallest of these numbers?

14) Half of your baseball card collection got wet and was ruined. You bought 17 cards to replace some that were lost. How many did you begin with if you now have 33?

15) Jacob spent half of his weekly allowance playing mini-golf. To earn more money his parents let him wash the dog for $5. What is his weekly allowance if he ended with $9?

16) The Cooking Club made some pies to sell during lunch to raise money for an end-of-year banquet. The cafeteria contributed two pies to the club. Each pie was then cut into seven pieces and sold. There were a total of 84 pieces to sell. How many pies did the club make?

17) Elisa was going to sell all of her stamp collection to buy a video game. After selling half of them she changed her mind. She then bought eighteen more. How many did she start with if she now has 33?

18) For a field trip 7 students rode in cars and the rest filled seven buses. How many students were in each bus if 399 students were on the trip?

19) The Cooking Club made some pies to sell during lunch to raise money for a field trip. The cafeteria helped by donating two pies to the club. Each pie was then cut into seven pieces and sold. There were a total of 63 pieces to sell. How many pies did the club make?

20) The Cooking Club made some pies to sell during lunch to raise money for an end-of-year banquet. The cafeteria contributed three pies to the club. Each pie was then cut into seven pieces and sold. There were a total of 56 pieces to sell. How many pies did the club make?

21) Trevon won 47 lollipops playing hoops at his school's game night. Later, he gave two to each of his friends. He only has 9 remaining. How many friends does he have?

22) Half of your baseball card collection got wet and was ruined. You bought 11 cards to replace some that were lost. How many did you begin with if you now have 23?

23) The Cooking Club made some pies to sell during lunch to raise money for an end-of-year banquet. The cafeteria contributed three pies to the club. Each pie was then cut into eight pieces and sold. There were a total of 80 pieces to sell. How many pies did the club make?

24) 141 students went on a field trip. Four buses were filled and 13 students traveled in cars. How many students were in each bus?

25) How old am I if 400 reduced by 4 times my age is 200?

26) Half of your baseball card collection got wet and was ruined. You bought 14 cards to replace some that were lost. How many did you begin with if you now have 32?

27) 461 students went on a field trip. Eight buses were filled and 5 students traveled in cars. How many students were in each bus?

28) For a field trip 21 students rode in cars and the rest filled six buses. How many students were in each bus if 357 students were on the trip?

29) You bought a magazine for $4 and three notepads. You spent a total of $10. How much did each notepad cost?

30) Jennifer wanted to make note cards by cutting pieces of paper in half. Before starting she got two more pieces to use. When she was done she had 18 half-pieces of paper. With how many pieces did she start?

Answers to Using Equations to Solve Word Problems (ID: 1)

1) 5
2) $2
3) 20
4) 9
5) 34
6) 5
7) 27
8) 18
9) $3
10) $2
11) 24
12) 9
13) 26
14) 32
15) $8
16) 10
17) 30
18) 56
19) 7
20) 5
21) 19
22) 24
23) 7
24) 32
25) 50
26) 36
27) 57
28) 56
29) $2
30) 7