

Beginning Algebra Word Problems

Example.

The sum of two numbers is 60, and the greater is four times the less. What are the numbers?

x = the smaller number

$4x$ = the bigger number,

$$4x + x = 60,$$

$$5x = 60;$$

$$x = 12,$$

x = the smaller number = 12

$4x$ = the bigger number = $4(12) = 48$

1. The greater of two numbers is twice the less, and the sum of the numbers is 129. What are the numbers?
2. A man bought a horse and carriage for \$500, paying three times as much for the carriage as for the horse. How much did each cost?
3. Two brothers, counting their money, found that together they had \$186, and that John had five times as much as Charles. How much had each?
4. Divide the number 64 into two parts so that one part shall be seven times the other.
5. A man walked 24 miles in a day. If he walked twice as far in the forenoon as in the afternoon, how far did he walk in the afternoon?
6. For 72 cents Martha bought some needles and thread, paying eight times as much for the thread as for the needles. How much did she pay for each?
7. In a school there are 672 pupils. If there are twice as many boys as girls, how many boys are there?
8. Find two numbers such that their difference is 250 and one is eleven times the other.
9. James gathered 12 quarts of nuts more than Henry gathered. How many did each gather if James gathered three times as many as Henry?
10. A house cost \$2880 more than a lot of land, and five times the cost of the lot equals the cost of the house. What was the cost of each?
11. Mr. A. is 48 years older than his son, but he is only three times as old. How old is each?
12. Two farms differ by 250 acres, and one is six times as large as the other. How many acres in each?
13. William paid eight times as much for a dictionary as for a math book. If the difference in price was \$6.30, how much did he pay for each?
14. The sum of two numbers is 4256, and one is 37 times as great as the other. What are the numbers?
15. Aleck has 48 cents more than Arthur, and seven times Arthur's money equals Aleck's. How much has each?
16. The sum of the ages of a mother and daughter is 32 years, and the age of the mother is seven times that of the daughter. What is the age of each?
17. John's age is three times that of Mary, and he is 10 years older. What is the age of each?

Beginning Algebra Word Problems - Solutions

1. The greater of two numbers is twice the less, and the sum of the numbers is 129. What are the numbers?
43; 86

2. A man bought a horse and carriage for \$500, paying three times as much for the carriage as for the horse. How much did each cost? **Carriage \$375; Horse \$125**

3. Two brothers, counting their money, found that together they had \$186, and that John had five times as much as Charles. How much had each? **Charles \$31; John \$155**

4. Divide the number 64 into two parts so that one part shall be seven times the other. **8; 56**

5. A man walked 24 miles in a day. If he walked twice as far in the forenoon as in the afternoon, how far did he walk in the afternoon? **8 miles**

6. For 72 cents Martha bought some needles and thread, paying eight times as much for the thread as for the needles. How much did she pay for each? **Needles 8¢; Thread 64¢**

7. In a school there are 672 pupils. If there are twice as many boys as girls, how many boys are there?
224 girls; 448 boys

8. Find two numbers such that their difference is 250 and one is eleven times the other. **25; 275**

9. James gathered 12 quarts of nuts more than Henry gathered. How many did each gather if James gathered three times as many as Henry? H = Henry's quarts, J = James's quarts; h **Henry 6 qts; James 18 qts**

10. A house cost \$2880 more than a lot of land, and five times the cost of the lot equals the cost of the house. What was the cost of each? **Lot \$720; House \$3600**

11. Mr. A. is 48 years older than his son, but he is only three times as old. How old is each? **Mr.A is 72; Son is 24.**

12. Two farms differ by 250 acres, and one is six times as large as the other. How many acres in each? **50 Acres; 300 Acres**

13. William paid eight times as much for a dictionary as for a math book. If the difference in price was \$6.30, how much did he pay for each? **Dictionary \$7.20; Math book \$0.90**

14. The sum of two numbers is 4256, and one is 37 times as great as the other. What are the numbers? **112; 4144**

15. Aleck has 48 cents more than Arthur, and seven times Arthur's money equals Aleck's. How much has each?
Aleck 56¢; Arthur 8¢

16. The sum of the ages of a mother and daughter is 32 years, and the age of the mother is seven times that of the daughter. What is the age of each? **Mother is 2; Daughter is 4.**

17. John's age is three times that of Mary, and he is 10 years older. What is the age of each?
John is 15yrs; Mary is 5 yrs.