

Suppose you know the mean, but you are missing one of the numbers.

Examples:

85 = mean

86, 83, 81, ____

Find the missing number.

You have 4 numbers that have a mean of 85. **Multiply** $85 \cdot 4$ to get the total sum needed.

$$85 \cdot 4 = 340 \text{ (total sum)}$$

Add the 3 numbers that you know.

$$86 + 83 + 81 = 250 \text{ (sum you have)}$$

Now **subtract** the sum you have from the total sum to find your missing number.

$$340 - 250 = 90 \text{ (missing number)}$$

73 = mean

75, 94, 32, 75, ____

Find the missing number.

Multiply the mean of 73 by 5 (numbers you have).

$$73 \cdot 5 = 365 \text{ (total sum)}$$

Add the numbers you are given.

$$75 + 94 + 32 + 75 = 276 \text{ (sum you have)}$$

Subtract the sum you have from the total sum to find your missing number.

$$365 - 276 = 89 \text{ (missing number)}$$

Practice:

1) Mean = 37

40, 29, 50, ____

2) Mean = 90

100, 95, 92, 85, ____

3) Mean = 40

50, 30, 75, 15, ____

4) Mean = 75

85, 60, 25, ____

5) Mean = 50

65, 80, 73, 30, ____

6) Mean = 81

70, 93, 69, ____

7) Mean = 25

10, 29, 37, 20, ____

8) Mean = 31

63, 53, 20, 10, ____

9) Mean = 100

300, 75, 100, 10, ____

10) Mean = 130

200, 100, 125, ____

11) Mean = 70

89, 34, 40, 23, ____

12) Mean = 91

100, 140, 60, 75, ____

13) Mean = 39

50, 10, 29, 13, ____

14) Mean = 48

50, 60, 30, 21, ____

15) Mean = 88

90, 80, 75, ____

16) Mean = 45
35, 75, ____

17) Mean = 80
100, 100, 20, ____

18) Mean = 20
50, 10, 5, 4, ____

19) Mean = 35
80, 20, 5, ____

20) Mean = 70
80, 100, 30, ____

21) Mean = 35
29, 36, 47, ____

22) Susan has four 20-point projects for math class. Susan's scores on the first 3 projects is shown below:

Project 1: 18

Project 2: 15

Project 3: 16

Project 4: ??

What does she need to make on Project 4 so that the average for the four projects is 17?