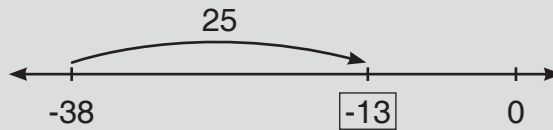


EXAMPLEWhat is $-38 + 25$?

Consider the computation on the number line. We start at -38 and move 25 units to the right. This brings us 25 units closer to zero. We end up $38 - 25 = 13$ units to the left of zero at **-13** .

**PRACTICE**

Compute each sum below.

82. $19 + (-11) =$ _____

83. $(-11) + (-17) =$ _____

84. $-20 + (-13) =$ _____

85. $-23 + 35 =$ _____

86. $-12 + (-71) =$ _____

87. $28 + (-14) =$ _____

88. $25 + 16 =$ _____

89. $13 + (-48) =$ _____

90. $(-18) + 18 =$ _____

91. $24 + (-36) =$ _____

92. Which number is 35 more than -14 ?

92. _____

93. What do you get when you add 20 to the sum of -11 and -19 ?

93. _____

94. Without computing the sums below, circle those that are negative.

$-16,987 + 6,654$

$-42,345 + (-57,654)$

$856,915 + (-532,812)$

$1,098,765 + (-2,345,678)$

You can find more practice problems at BeastAcademy.com!

EXAMPLE Find the next three terms in the pattern below.

-9, -7, -5, -3, __, __, __

Each term in the pattern is 2 more than the one before it.

$$\begin{array}{ccccccc} & +2 & +2 & +2 & & & \\ & \curvearrowright & \curvearrowright & \curvearrowright & & & \\ -9, & -7, & -5, & -3, & _, & _, & _ \end{array}$$

So, we continue the pattern by adding 2's.

$$\begin{array}{cccccccc} & +2 & +2 & +2 & +2 & +2 & +2 & \\ & \curvearrowright & \curvearrowright & \curvearrowright & \curvearrowright & \curvearrowright & \curvearrowright & \\ -9, & -7, & -5, & -3, & -1, & 1, & 3 & \end{array}$$

PRACTICE Fill in the blanks in each skip-counting pattern below.

95. -25, -20, -15, _____, _____, _____, _____, _____

96. -53, -43, -33, _____, _____, _____, _____, _____

97. -55, -42, -29, _____, _____, _____, _____, _____

98. -16, _____, -12, -10, _____, _____, _____, _____

99. _____, _____, -19, _____, _____, -10, _____, -4, _____

100. -24, _____, -14, _____, _____, _____, 6, _____, _____

101. -43, _____, _____, _____, -11, _____, _____, _____, 21

In a **Sum Square** puzzle, the digits 1 through 9 are used to fill the nine squares in the grid, one digit per square.

Some of the numbers in the grid are positive, and some are negative.

The numbers above and to the left of the grid give the sum of the integers in each column and row. On the right is an example of a completed Sum Square.

	4	1	10
11	-3	6	8
3	9	-1	-5
1	-2	-4	7

EXAMPLE Complete the Sum Square puzzle below.

	5	12	0
6	1		
13			
-2	6	-5	-3

First, we look at the left column. We have $1 + \square + 6 = 5$. This simplifies to $7 + \square = 5$. Since $7 + \mathbf{-2} = 5$, we fill the middle square of the left column with -2 as shown.

The remaining digits are 4, 7, 8, and 9.

	5	12	0
6	1		
13	-2		
-2	6	-5	-3

The two missing entries in the middle row must sum to 15 because $-2 + 15 = 13$. The only way to get a sum of 15 from two of the remaining digits is $7 + 8 = 15$.

	5	12	0
6	1		
13	-2		
-2	6	-5	-3

Similarly, the two missing entries in the middle column must sum to 17 because $-5 + 17 = 12$. The only way to get a sum of 17 from two of the remaining digits is $8 + 9 = 17$.

We learned above that the 8 is in the middle row. So, we place the 8 as shown in the center square, with the 9 above it.

	5	12	0
6	1	9	
13	-2	8	
-2	6	-5	-3

The remaining digits are 4 and 7.

In the top row, we have $1 + 9 + \mathbf{-4} = 6$, and in the middle row, we have $-2 + 8 + \mathbf{7} = 13$.

All the digits have now been placed, and we check the sum of the integers in each row and column.

	5	12	0
6	1	9	-4
13	-2	8	7
-2	6	-5	-3

PRACTICE Complete each Sum Square puzzle below.

102. 16 9 20

12	1		
13	6	2	
20			7

103. 3 -7 15

9	8	-6	
0		4	
2			9

104. 9 0 0

9	6	5	
0			-7
0		-8	

105. -8 -10 -5

-4			8
-11		1	
-8	2		-4

106. 0 0 3

0	1		-4
0		-9	
3	-8		

107. 20 0 -11

12	9		-4
0		-2	
-3			-1