

WORKSHEETS ON ALGEBRAIC EQUATIONS

Name _____

Score _____

Date _____

Complete all the problems.

1. $g + 10g =$

2. $4b + 7b =$

3. $-2c + 5c - 7c =$

4. $-8c + c - 3c =$

5. $-6x + 8 + 5x =$

Solve the equation by substituting the given value for the variable

1. $8x - 3$ when $x=1.5$

2. $2(36-4t)$ when $t=3.4$

Solve

$5x + 3 = -2$ $X = \underline{\hspace{2cm}}$	$-2(3x - 4) = 8$ $X = \underline{\hspace{2cm}}$
$\frac{X}{3} + 7 = 11$ $X = \underline{\hspace{2cm}}$	$\frac{X}{3} = 2(x - 5)$ $X = \underline{\hspace{2cm}}$

Translate the given phrase into algebraic expression:

1. 7 less than sum of 3 and x divided by 5

Answer: _____

2. Quotient of 4 and 5 is added to the product of 6 and z

Answer: _____

3. The sum of a number and 6 is decreased from the sum of the same number and 7.

Answer: _____

4. Sixteen times the sum of a , b , and c .

Answer: _____

5. A number k divided by 4 is 5. What is the number?

Answer: _____

In the expression $-21x + 37$, what is the coefficient of x ? What is the constant term?

Solve these equations:

Expression	Solution
$2x + 6 = 8x$	
$3z - 7 = 6z + 2$	
$16a = 5a + 33$	
$8 - x = x + 2$	
$-3x = -18$	
$1.2y = 3.6$	

Find out the integer

1. I am an integer. When you add 35 to me, the result is -15. Who am I?

2. Marwa and Rawana together had collected 550 foreign stamps. Rawana had 40 stamps more than double the number of stamps of Marwa. Find the number of stamps each one collected.

Write an algebraic equation with the number of stamps of Marwa as X and then solve.

3. The perimeter of a rectangle is 60 metres. The length of the rectangle is 6 metres longer than the width. If the width is expressed as X , the situation can be represented as

- a) $4x + 6 = 60$ b) $2x + 12 = 60$ c) $60 - 4x = 6$ d) $4x + 12 = 60$

4. You can run the mile in 6.5 minutes, which is 45 seconds faster than your friend Maryam can run the mile. Write an equation that you could use to determine the time it takes for Maryam to run a mile (X).

- a) $X = 6.5 - 0.45$ b) $X = 6.5 + 45$ c) $X = 6.5 + 0.45$ d) $X = 6.5 - 45$