

## Questions:

1. Evaluate the expression  $(3a + 2b)/2$  where  $a = -3$ ,  $b = -4$ .
2. Simplify the following:  $x^2 - 9 / x + 3$
3. Expand:  $(2x-3)^2$
4. Evaluate:  $(3x - y)/(6z - x)$  ; if  $x = 2$ ,  $y = 8$ ,  $z = -2$
5. Simplify:  $(14-30)/2(-4)$
6. Use the distributive property to simplify.  $-3(x-10)+x$
7. Simplify:  $8y-2-3(y-4)$
8. Solve for  $x$ :  $3(x+1) = -6$
9. Add the polynomials:  $2a + 3b + 5a - 7b$
10. Subtract the polynomials:  $(4x-11) - (3x - 2)$
11. The difference of twice a number and six is four times the number. Find an equation to solve for the number.
12. Simplify the expression:  $3x^2 + 6 / x + 2$
13. Solve:  $3(x-5) < x-8$
14. A flowerbed is in the shape of a triangle with one side twice the length of the shortest side and the third side 15 feet longer than the shortest side. If the perimeter is 100 feet and if  $x$  represents the length of the shortest side, find an equation to solve for the lengths of the three sides.
15. If John has \$50 more money than Mary and you choose to represent John's amount of money as  $X$  how should you represent Mary's amount of money in terms of  $X$ ?
16. Given the equation  $-2x + 3y = 12$ , find the missing value in the ordered pair  $(-3, ?)$
17. Graph the line  $3x+y=6$ .
18. The DoBee.Com Corporation has 5 more than three times as many females as male supervisors. If " $x$ " represents the number of male supervisors write an expression that would represent the total number of female supervisors in terms of " $x$ ".
19. Charles needs enough fencing to enclose a rectangular garden with a perimeter of 140 feet. If the width of his garden is to be 30 feet, write the equation that can be used to solve for the length of the garden.
20. Solve:  $(9b^2 - 3b)/3b = ?$