



Algebra Applications

Algebra Basics

If $x = 4$, $y = 3$ and $z = 2$ then solve problems 1-6, using lessons in 6.1.

1. $2x =$	2. $xy =$	3. $z^2 =$
4. $4x+z =$	5. $(x+z)/2 =$	6. $xz+z =$

Simplify to the lowest terms of x , y and/or z .

7. $4x+3-6x$	8. $3(y-z)$	9. $x(y+z)$
10. $z(2+x)+ 3z$	11. $z(zx+y)$	12. $4x^2+3z+2z-3x^2$
13. $(x^3y^2)+(3x^3y^2)$	14. $2x^2+3x+x^2-2x$	15. $(x^1y^2)(x^2y^1)$

16. Using the formula $y = (ab)+p$ and manipulate it algebraically to solve for b . Show all work.

17. Using the formula $\text{rate} = \text{distance}/\text{time}$ find the time needed for a robot moving at a constant velocity of 20 meters/second to travel a distance of 300 meters. Show all work.