

Interpreting Word Problems

Statement	Algebraic Form
Four more than twice a number	$2x + 4$ The "2x" represents twice a number
Five less than 3 times a number	$3x - 5$ The "3x" represents three times a number
Three times the sum of a number and 8	$3(x + 8)$ The "(x + 8)" represents the sum of a number and 8
Twice the difference between a number and 4	$2(x - 4)$ The "(x - 4)" represents the difference between a number and 4

Common items you will see in word problems			
Word or Phrase	Operation	Statement	Algebraic Form
Added to	Addition	7 added to a number	$X + 7$
More than		5 more than a number	$X + 5$
Increased by		A number increased by 3	$X + 3$
The sum of		The sum of a number and 4	$X + 4$
Subtracted from	Subtraction	6 subtracted from a number	$X - 6$
Less than		7 less than a number	$X - 7$
Decreased by		A number decreased by 5	$X - 5$
The difference between		The difference between a number and 9	$X - 9$

<p>Multiplied by</p> <p>The product of</p> <p>Twice a number, 3 times a number, etc.</p> <p>Of, when used with a percent or fraction</p>	<p>Multiplication</p>	<p>A number multiplied by 6</p> <p>The product of 4 and a number</p> <p>Twice a number</p> <p>20% of a number</p>	<p>$6x$</p> <p>$4x$</p> <p>$2x$</p> <p>$0.20x$</p>
<p>Divided by</p> <p>The quotient of</p> <p>One-half of a number, one third, etc.</p>	<p>Division</p>	<p>A number divided by 8</p> <p>The quotient of a number and 6</p> <p>One-seventh of a number</p>	<p>$\frac{x}{8}$</p> <p>$\frac{x}{6}$</p> <p>$\frac{x}{7}$</p>