TRANSLATING TO ALGEBRAIC EXPRESSIONS

Concept	Word	Example	Expression
Addition	increased by	a number increased by 6	x+6
	more than	8 more than a number	x+8
	combined, together	nine and a number combined	x+9
	total of	The total of 15 and a number	x+15
	sum, plus	The sum of a number and 12	x+12
	added to	A number added to 20	20+x
	comparatives ("greater than", etc)	Six greater than a number	x+6
Subtraction **(pay attention to order)**	decreased by	A number decreased by 10	x-10
	minus, less	Fifteen minus a number	15-x
	difference between/of	The difference between 6 and a number	6-x
	less than, fewer than	Nine less than a number	x-9
	left, left over, after	Sam had 10 apples, he gave away an unknown quantity, how many are left	10-x
	comparatives ("smaller than", etc)	5 smaller than a number	x-5

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Concept	Word	Example	Expression
Multiplication	of	10% of a number	$\dfrac{10}{100}x$
	times, multiplied by	A number times 10	10x
	product of	The product of 7 and a number	7x
	increased/decreased by a factor of (this last type can involve both addition or subtraction *and* multiplication)	A number increased by a factor of 10	10x
	twice, triple, etc	Twice a number	2x
	each ("they got three each", etc)	How many books are there if each person has 6	6x
Division	per, a	$60 per x people	$\dfrac{60}{x}$
	out of	X games out of 15	$\dfrac{15}{x}$
	ratio of	The ratio of a number to 6	$\dfrac{x}{6}$
	quotient of	Quotient of a number and 12	$\dfrac{x}{12}$
	percent (divide by 100)	25%	$\dfrac{25}{100}$
	equal pieces, split	20 apples split by x people	$\dfrac{20}{x}$
	Average (the number of items goes in the denominator)	The average of a number and 3	$\dfrac{x+3}{2}$

TRANSLATING TO ALGEBRAIC EXPRESSIONS

Concept	Word	Example	Expression
Equals	is, are, was, were, will be gives, yields sold for, cost		
Greater Than (or equal to)	is greater than (>) at least (≥)	The difference between a number and 8 is at least 15	$x - 8 \geq 15$
Less Than (or equal to)	is less than (<) No more than (≤)	The sum of a number and 3 is no more than 8	$x + 3 \leq 8$
Parenthesis	Quantity of	The quantity of a number and 7	(x+7)