Math Section > Math Vocabulary and Expressions

Exercise # 1

A. Match each word/expression with its corresponding representation.

WORD/ EXPRESSION	REPRESENTATION
(1) **integers**	$\sqrt{144}$
(2) **square root**	15 ; 27 ; 41; 195
(3) **ratio / fraction**	24 ÷ 8 = 3
(4) **prime factors**	-6 ; 0 ; 7
(5) **odd (numbers)**	1 ; 2 ; 3 ; 4 ; 6 ; 8 ; 12 ; 24
(6) **quotient of 24 and 8**	**5x** or **5(x)**
(7) **factors of (24)**	**x:y** or $\frac{x}{y}$
(8) **some number times five**	$\frac{5+1+9}{3}=$ ⑤
(9) **24 to the power of 3**	2 ; 4 ; 18 ; 122 ; 348
(10) **average**	**24^3** or **24³**
(11) **even (numbers)**	2 ; 3 ; 17 ; 39 ; 67 ; 83 ; etc.

Symbols

= is equal to	≠ is not equal to

< is less than	≤ is less than or equal to	> is greater than
	≥ is greater than or equal to	

≅ is approximately equal to	≈ is approximately	| | absolute value

± plus or minus	% percent	$a : b$ ratio of a to b or $\dfrac{a}{b}$

Exercise # 2

A. Write 'T' or 'F' in the blank to indicate if each statement below is true of false.

1. _____ $9 > 7$

2. _____ $6.99 \cong 7$

3. _____ $47 \geq 47$

4. _____ $89 < 64$

5. _____ 99% is 99 percent

6. _____ $14 \neq 14$

7. _____ $2 : 4 = \dfrac{2}{4}$

8. _____ $|-7| = 7$

9. _____ $8 = -8$

10. _____ $49 \leq 34$

11. _____ $\pm 3 = -3 \; or \; 3$

12. _____ $8 + |-9| = 17$

Order of Operations - P.E.M.D.A.S.

1. Perform operations shown within **P**arentheses.

2. Attend to **E**xponents and square roots.

3. Perform **M**ultiplication or **D**ivision, whichever comes <u>first left to right</u>.

4. Perform **A**ddition or **S**ubtraction, whichever comes <u>first left to right</u>.

Exercise # 3

A. Calculate the answers to the following.

1. $(17+3) + 20 =$ _____

2. $45 - 43 \times 2 + 32 =$ _____

3. $(12 + 3)(2 \times 3) =$ _____

4. $14 \div 2 + 14 =$ _____

5. $6^2 - 3 + 2 =$ _____

6. $12 \times 12 + 2^3 =$ _____

7. $3^2 + 4(5-2) =$ _____

8. $(4+2)^3 + (3\times2) - 2^2 =$ _____

9. $9 + 6 \div 2 \times 3 =$ _____

LIVEWORKSHEETS

Understanding Expressions

When You See	Think
sum, plus, more than, added to, combined total, larger	+
minus, less than, difference between, decreased by	−
is, was, equals, is equivalent to, is the same as, adds up to, gives	=
times, product, multiplied by, of, twice, double, triple	×
divided by, over, quotient, per, out of, into	÷
what, how much, how many, a number	$x, n, etc.$

Exercise # 4

A. Translate the following phrases from English to Math.

1. y is 5 more than x = _____

2. r equals half of s = _____

3. Divide the sum of w and x by y and multiply the result by z = _____

4. The product of a and b is 3 more than their sum = _____

5. 2 less than m is equal to n = _____

6. x is twice as great as y = _____

7. The quotient of z and 4 is 60 = _____

8. how many times does seven go into 35? = _____

9. sixteen subtracted from a number = _____

10. four larger than twice x = _____

More Verbal Expressions

Verbal Expression	Algebraic Expression
Some number plus 7	$x+7$
Some number subtracted from 8	$8-x$
8 subtracted from some number	$x-8$
The product of some number and 12	$12x$
The product of 5 and the sum of x and y	$5(x + y)$
Some number divided by 4 **or** some number in 4	$\dfrac{x}{4}$
The ratio of 6 and some number	$\dfrac{6}{x}$
9 times some number plus the sum of 5 and y	$9x + (5 + y)$
12 less the sum of 3 and some number	$12 - (3 + x)$

Exercise # 5

A. Write the following using algebraic expressions.

       1. *Six times some number plus four squared =* _____

       2. *Twelve times the sum of six plus some number =* _____

       3. *Twice x and y times the product of 11 plus the product of x and y =* _____

       4. *Some number divided by 40 and the product of x and y =* _____

       5. *Some number squared plus that number times 14 equals minus 21 =* _____

       6. *Seven less than y plus the cube root of 216 square =* _____

       7. *Twelve in p multiplied by the quotient of y and 3 =* _____

       8. *The product of 8 and y minus x plus 4 to the power of 4 =* _____

LIVEWORKSHEETS