

Lesson 8

Writing Algebraic Expressions (English to Math)

*****Reminders sec.1 geometry

- Bisector?

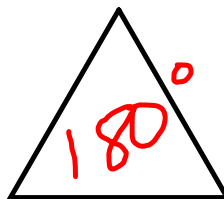
$\frac{1}{2}$



- Complementary angles equals?



- Supplementary angles equals?



Algebraic Translation (English to Math)

MATHEMATICS	ENGLISH EQUIVALENT
+	plus, add, increase, greater than larger, augment, sum, more than
-	subtract, minus, negative, decrease, less than, reduce, diminish, difference
x	times, of, multiply, product
÷	divided, goes into, a certain number of parts, quotient
=	equal, equal to, is, results in, gives you, makes
a, q, t, p, y, z, n, d, g, etc.	a number, an age, a quantity, a mass, a volume, a certain amount, etc.
7x	seven times a number, a number times seven, product of 7 & x
+ 6	a number increased by six, six larger than a number, etc.
- 9	a number decreased by nine, nine less than a number, a number reduced by nine, etc.
4x + 7 = 8	four times a number plus seven equals eight.
(x)(x) or x ²	a number times itself, a number squared
2x	double or twice a number
3x	triple or three times the number
x ³	a number cubed

NAME: _____

Translate each English phrase into an algebraic expression.

1. An unknown number squared
2. A number of coins tripled
3. One-fifth of a number decreased by eight
4. Six times a number diminished by seven
5. Four years subtracted from a person's age
6. Thirty-five is added to a number
7. A certain quantity doubled
8. A distance plus half the distance
9. An unknown number is subtracted from sixty-two
10. A sum of money quadrupled
11. An angle is increased by nine degrees
12. Half a horse's mass decreased by fifteen
13. The negative of a number
14. A certain number is cubed and the result multiplied by six
15. A person's age increased by eight
16. A number is tripled and the result doubled
17. Ten times the cube of a certain number
18. The sum of a number and its square
19. An unknown number of dollars is doubled and the result increased by thirty-seven
20. Seven is increased by half a number
21. An age plus twice this age is tripled
22. One-sixth of the length of a rectangle
23. An unknown number is added to three decimal five

x^2

 $3x$

 $\frac{1}{5}x - 8$

 $6x - 7$

 $x - 4$

_____ date

MATHEMATICS
Assignment

_____ name

Represent each of the following phrases by an algebraic expression.

1. y increased by 8
2. Nine subtracted from k
3. Three more than x
4. A number diminished by 4
5. Five times a number increased by 2
6. Two less than three times x
7. The sum of x and 1 multiplied by 4
8. Nine more than 7 times x
9. Two times the difference of n and 3
10. The product of 4 and y increased by 8
11. Five added to one half of x
12. Four greater than x
13. A number divided by 5 is decreased by 6
14. One half the sum of x and 5
15. Three less than y
16. Twice x diminished by 7
17. The product of 7 and y subtracted from 5
18. Four increased by 3 times y
19. Six less than a third of n
20. Three times x , diminished by 2
21. The number n is doubled
22. The number x decreased by half of itself
23. x added to twice n
24. Eight times the sum of x and 11
25. Three more than the product of 7 and x
26. Fifteen longer than 3 times x
27. The difference between $2x$ and 5
28. The sum of x and 6 divided by 3
29. The difference between twice x and half of n
30. 5 divided by twice the sum of a and x
31. Five more than 2 times a number
32. Seven less than five times a number
33. Five times a number decreased by 2
34. Two diminished by 7 times a number
35. Three increased by 5 times a number
36. Nine less than a number
37. Nine diminished by 4 times a number
38. Two times the sum of a number and 8
39. Two-thirds of a number
40. Three times the sum of twice a number and 8
41. Two years younger than 6 times age x
42. Six years older than twice the age n
43. Nine meters less than twice n
44. A number squared
45. Nine decreased by one-third of x