

CH1, L1 – WRITING ALGEBRAIC EXPRESSIONS FROM VERBAL EXPRESSIONS

Big Idea:

Partner Practice: (*Low Difficulty*)

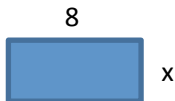
1. Translate the following verbal expressions into an algebraic expression:

<p>a. Seven decreased by 3 times some number</p> <p>Expression: _____</p>	<p>b. Twice the difference of p and 10</p> <p>Expression: _____</p>
<p>c. 4 times the sum of 3 and x</p> <p>Expression: _____</p>	<p>d. 10 less than twice a number w</p> <p>Expression: _____</p>

2. A mechanic charges \$45 per hour and parts cost \$125. Write an expression for the total if the mechanic works h hours.

Expression: _____

3. Write an expression to find the perimeter of a rectangle with a length of 8 mm and width of x mm.



Expression: _____

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1. Verbal expression is annotated for meaning
2. Numeric or algebraic expression is written to represent the verbal expression
3. Expression is checked against the original verbal expression by substituting actual values

Partner Practice: *(Medium Difficulty)*

4. Write an algebraic expression from the following:

- a. Sum of a number squared and twice the number

Expression: _____

- b. The quotient of the three times a number and the quantity 4 plus the same number

Expression: _____

- c. 5 less than a number all multiplied by the quantity of three times the number

Expression: _____

5. Veronica writes the expression $3n - 5 + n$ given the verbal expression “*three times a number minus 5 plus the same number*”. Cory writes the expression $3n - (5 + n)$. Who do you agree with? Justify your answer

6. Margo said that the answer to number 5 was that they were both correct in this case. Prove Margo correct or incorrect using substitution and evaluating.

<p><i>Prove Margo</i> _____</p>	<p><i>Prove Margo</i> _____</p>
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2. Numeric or algebraic expression is written to represent the verbal expression
3. Expression is checked against the original verbal expression by substituting actual values

7. Look at the annotations and work shown below to find, correct, and explain the error made:

"Write an algebraic expression that represents three times a number less than the sum of twice the number and 1".

$n + 1$ $3x$ n $2x$

(Annotations: "three times a number" is circled and labeled $3x$; "sum of twice the number and 1" is circled and labeled "grouping" with $2x$ below it.)

$$3n - (2n + 1)$$

8. Given the following verbal expression, "three times a number, n , minus 4 all divided by 5." Write an algebraic expression and evaluate the expression for when $n = 9$.

Expression: _____

9. The width of a rectangle is half the quantity of the length increased by 2. If l represents the length, write an expression to represent the width.

Expression: _____

1. Verbal expression is annotated for meaning
2. Numeric or algebraic expression is written to represent the verbal expression
3. Expression is checked against the original verbal expression by substituting actual values

Partner Practice: (*Hard Difficulty*)

10. A rectangle has a length of l and a width that is a third the length minus 1.
- Write an expression that could be used to find the area

Expression: _____

- Write an expression that could be used to find the perimeter

Expression: _____

- Write an expression that could be used to find the quotient of the perimeter divided by the area

Expression: _____