## Lesson 7

**Aim:** I can translate verbal expressions to algebraic expressions

**Warm Up:**

1) $-4 + (-5)(3)$

$-4 + -15 = \boxed{-19}$

2) Which answer is greater? $\boxed{(3x)^2}$ or $3x^2$ when $x = 2$

$(3(2))^2$ $\quad$ $3(2)^2$

$6^2 = 36$ $\quad$ $3 \cdot 4 = 12$

3) What is the difference between an expression and an equation?

An expression does NOT have an equal sign while an equation does.

**Guided Practice:**

| $x + 5$ | $x - 5$ | $5x$ | $\frac{5}{x}$ |
|---|---|---|---|
| The sum of (a #) x and the number 5 | 5 subtracted from a number | The product of 5 and a number | The quotient of 5 and a # |

**Remember....**

More Than / Less Than

$+ / -$

Subtracted From

$-$

**Translate and Simplify**

1) The product of -2 and -6

$(-2)(-6) = 12$

2) 7 subtracted from -10

$(-10) + -7 = -17$

3) 8 less than 10

$10 - 8 = \boxed{2}$



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**Write an algebraic expression for each**

1) 3 times a number plus 6

$3x + 6$

2) 4 less than a number times 2

$2x - 4$

3) x divided by 8

$x \div 8$

4) 12 subtracted by x

$12 - x$

**Math each phrase with the correct algebraic expression**

B 5) n increased by 11

D 6) 11 less than n

C 7) the sum of n and 19

B 8) 11 more than n

C 9) n increased by 19

A) n – 19

B) n + 11

C) n + 19

D) n – 11

E) 19 – n

F) 11 - n

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**Problem Set:** Write each as an algebraic expression

10) m increased by 8

$m + 8$

11) 4 less than c

$c - 4$

12) the sum of b and 14

$b + 14$

13) twice Don's age increased by 8

$2d + 8$

14) 40 more than Meg's bowling score

$M + 40$

15) Abe's savings decreased by $540

$A - 540$

16) Bill's batting average increased by 12

$B + 12$

17) Bert's cab company charges $1.00 plus and additional $3.00 per mile for a ride. Write an expression to represent the total charge for m, miles.

$3m + 1$

18) Madeline's cab company charges $3.00 plus and additional $2.00 per mile for a ride. Write an expression to represent the total charge for m, miles.

$2m + 3$

19) To rent a paddleboat in Belmont State Park, the cost is $7.00 plus $3.50 per hour. Write an expression to present the cost of the rental for h, hours.

$3.50h + 7$

20) An amusement park charges $5 for admission and $2 for each ride. Write an expression for the total cost of admission and *r* rides.

$2r + 5$

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