

Thursday  
October 15, 2015

## WARM-UP

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### EVALUATE

1)  $4 - (-5)$       2)  $9 - (+5)$       3)  $5 + (-9)$

4)  $(-3)(-5)$       5)  $-36 \div 4$       6)  $|3 + (-4)|$

**7) Mr. Benard had \$45 in his bank account. If he gained \$15.50, spent \$23.25, lost \$12, and gained \$8, how much does Mr. Betrand have left in his account?**

TO live A  
creative  
LIFE,  
we must LOSE  
our FEAR of  
BEING wrong.

*How do you express yourself  
when you....*

**are HAPPY?**

**have FOUND MONEY?**

**have purchased a new pair of  
Jordans?**

**get a BAD GRADE ON A TEST?**

**are MAD?**

**DO WE ALL EXPRESS OURSELVES THE  
SAME WAY? Why or Why not??**

*Introduction to  
Equations and  
Expressions*

**Lesson Essential Question**

***How do we translate our real life situations  
into algebra?***

***What is an  
algebraic  
expression?***

***EXAMPLE:***  $150 + w$   
 $35 \bullet w + z$

**CONSTANT**

a quantity that  
does not change.

**VARIABLE**

a letter or symbol,  
that can change, and  
represents a quantity

***What is an  
algebraic  
equation?***

***EXAMPLE:***  $15 + s = 27$

**SOLUTION**

the value of the  
variable that makes  
an equation true.

**PRACTICE**

1) 14 more than  $b$ .

2) 15 divided by  $d$ .

3)  $m$  multiplied by 67

4) the quotient of  $x$  and 25.

5) California has 21 more seats in the U.S. Congress than Texas has. If  $t$  represents the number of seats Texas has, write an expression for the number of seats California has.

6) Janet is 15 years younger than Isaiah. Using  $i$  for Isaiah, write an expression to show Janet's age.

**Write Algebraic Expressions  
for These Word Phrases**

**Ten more than a number**

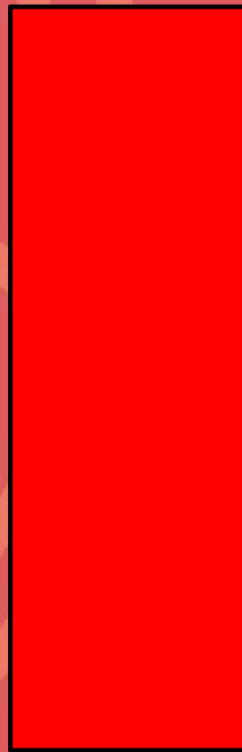
**A number decrease by 5**

**6 less than a number**

**A number increased by 8**

**The sum of a number & 9**

**4 more than a number**



## Write Word Phrases for These Algebraic Expressions

$$s + 2$$

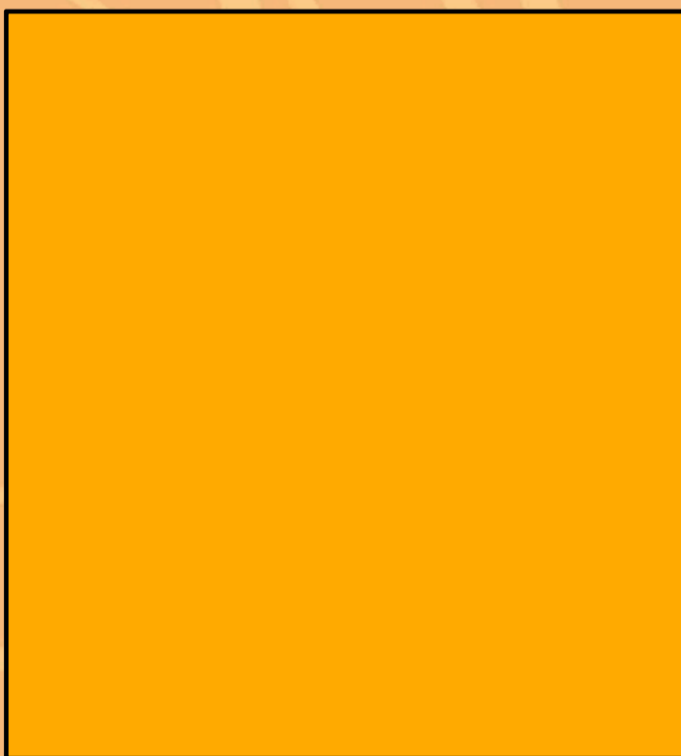
$$k - 1$$

$$x - 31$$

$$b + 7$$

$$n + 6$$

$$z + 9$$



**CHOOSE A NUMBER BETWEEN 1 and 10**

**If you were asked to write an expression for the trick we just performed, what would it be?**





Monday  
October 19, 2015

**WARM-UP**

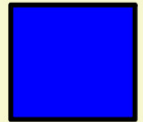
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**EVALUATE**

1)  $17 - (6 - 5)^{15}$

2)  $5 + \frac{-3}{4} \div \frac{6}{10} \bullet 4$

**3) The temperature on Friday in Alaska was  $-15^{\circ}\text{F}$ . The temperature on Saturday was  $19^{\circ}\text{F}$  higher. What was the temperature on Saturday?**



**4) The stock for Skittles at the beginning of the week was \$34.59. Over the next three days, the stock lost \$18.34 on Monday, gained \$12.19 on Tuesday and gained \$2.01 on Wednesday. What was the price of the share of stock at the end of Wednesday?**



*Evaluating Expressions***Lesson Essential Question**

***How do we evaluate an expression for a given value?***

How do we evaluate an algebraic expression?

In algebra, to evaluate means to substitute a number for the variable.

**EXAMPLE 1:**

Evaluate the expression  $n + 7$ , when  $n = 3$

**SOLUTION:** (wherever I see the variable  $n$ , replace it with 3)

$$\begin{aligned}n + 7 &= (3) + 7 \\ &= 10\end{aligned}$$

**EXAMPLE 2:**

Evaluate the expression  $3x$ , when  $x = 3$

**SOLUTION:** (wherever I see the variable  $x$ , replace it with 3)

$$\begin{aligned}3x &= 3(3) \\ &= 9\end{aligned}$$

**EXAMPLE 3:**

Evaluate the expression  $3x + 7$ , when  $x = 3$

**SOLUTION:** (wherever I see the variable  $x$ , replace it with 3)

$$\begin{aligned}3x + 7 &= 3(3) + 7 \\ &= 9 + 7 = 16\end{aligned}$$

*Evaluating  
Expressions*

**Lesson Essential Question**

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***How do we evaluate an expression for a given value?***

***PRACTICE  
we try together***

**EVALUATE EACH EXPRESSION**

1)  $4t$ , when  $t = 6$       2)  $x - 8$ , when  $x = 9$       3)  $63 \div z$ ,  $z = 9$

4)  $3r + 5$ ,  $r = 6$       5)  $2 - 7w$ ,  $w = -4$       6)  $2e + 5e$ ,  $e = -4$

Don't forget our calculations with rational numbers.

$$m + 2.8, \quad m = -4.3$$

substitute  
simplify

$$r^2 - 3, \quad r = 5$$

substitute  
simplify

$$(-s)(t), \quad s = \frac{1}{3} \quad t = 1 \frac{4}{5}$$

substitute  
simplify

## ***WORD APPLICATION***

***1) The expression  $1.8c + 32$  can be used to convert a temperature in degrees Celsius, C, to degrees Fahrenheit, F. If the temperature is  $40^{\circ}\text{C}$ , what is the temperature in degrees Fahrenheit?***

