

Looks Like

Algebraic Expressions  
 $a - x$   $m + m$   
 $c + 5$   $6 + x$   
 $(c + 5) + (6 + x)$

Algebraic Equations

$2 - n = -4$   
 $(3 - x) + (2 - x) = 3$   
 $y \cdot 10 + 2 = y \cdot 11$

Patterns

Simple  $\rightarrow$  one unknown  
 (change unknown)  
 15, 21, 27, 33, 39, 45

ask Questions  
 Increasing? Decreasing?  
 What's the rule?  
 adding 6

write an equation

test  $21 + 6 = n$   
 $21 + 6 = 27$   
 reply  $27 + 6 = n$   
 $27 + 6 = 33$

Mathematical Standards and Practices

We will use tables/graphs to communicate relationships between two quantities.  
 We will persevere in understanding algebraic patterns, functions, and relationships.  
 We will analyze, describe and represent algebraic patterns with precision.

Algebra

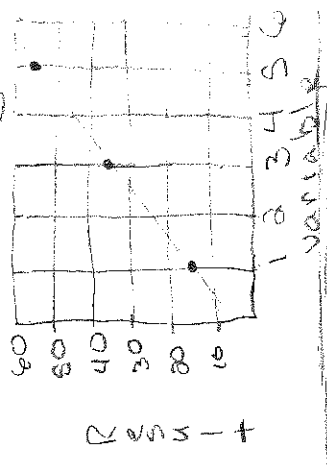
Finding an unknown (variable) using equations to solve problems

Function

a relationship between values  
 $n = a$  number

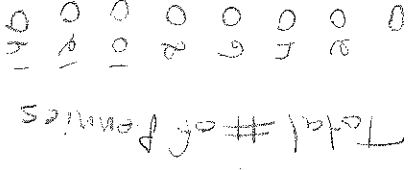
variable	multiply	result
$n$	$(n \cdot 10) + 5$	15
3	$(3 \cdot 10) + 5$	35
5	$(5 \cdot 10) + 5$	55

Graphing the relationship



We know in Inquiring Algebra

Looks Like  $4 + x =$



Number of Rounds

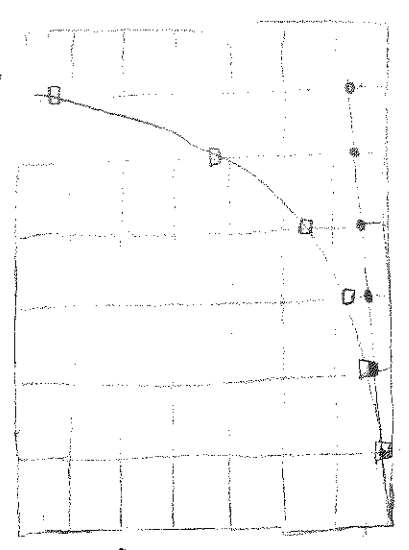
Rate of change

● = steady or constant rate of change  
 □ = rate of change not constant

Key: Pennies Jar #1 Start 2d

Rate added	Pennies Jar #1 Start 2d
Round 1 $2d = 4$	
R-2 $4 + 2 = 6$	
R-3 $6 + 2 = 8$	
R-4 $8 + 2 = 10$	
R-5 $10 + 2 = 12$	
R-6 $12 + 2 = 14$	

Looks Like  $4 + x =$  Changed 5th relationship between two situations  
 Comparing Two Penny Jars



Rate of change

● = steady or constant rate of change  
 □ = rate of change not constant

Key: Pennies Jar #2 Start 2d

Rate Doubling	Pennies Jar #2 Start 2d
R-1 $2d = 4$	
R-2 $4 + 4 = 8$	
R-3 $8 + 8 = 16$	
R-4 $16 + 16 = 32$	
R-5 $32 + 32 = 64$	
R-6 $64 + 64 = 128$	

we want to learn...