BELL WORK

FUNCTION NOTATION

1. Wesley works at a shoe store. He is paid $8 an hour plus a 7% commission on his total sales. Which of the following best represents *t*, Wesley's total weekly earnings if he works 30 hours and has total sales of *s* dollars?

A. $t = 0.08(30) + 0.07s$

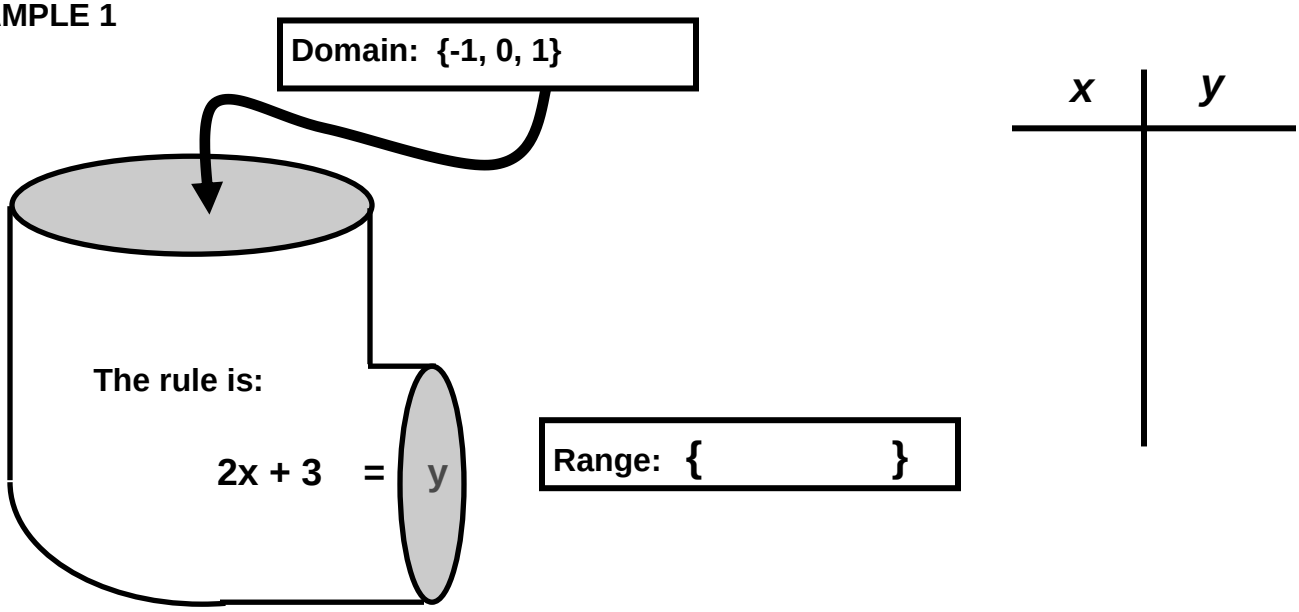
B. $t = 8(30) + 7s$

C. $t = 8(30) + 0.07s$

D. $t = 8(30) + 0.7s$

A ***FUNCTION*** can be a _____ with _____ values (the ***DOMAIN***) and _____ values (the ***RANGE***).

EXAMPLE 1



Ordered Pairs:_____

FUNCTION NOTATION: The rule y = 2x + 3 can also be written as **f(x) =** 2x + 3, which tells you what x value to plug in to the rule. For example, to find f(-1), you would replace x with -1 in the rule.

EXAMPLES: Find the range of each function for the given domain.

2) $f(x) = x^2 - 3$; D = {-2, 0, 2}

3) $g(x) = -2x - 4$; D = {-4, -1, 2}

EXAMPLE: Find the values indicated.

4) For h = {(-2, 6), (2, 8), (4, 10), (6, 12), (8, 14)}

h(6) = _____

h(-2) = _____

h(8) = _____

EXAMPLES: If f(x) = 2 – 1.3x and g(x) = .25x^2 – 9.1, find the following.

5) f(-2) = _____

6) g(5) = _____

7) f(4) + g(-1) = _____

EXAMPLES: The following table shows values for function h(x).

x	0	1	2	3	4
h(x)	-10	-7	4	29	74

Evaluate the following:

8) h(4) – 3 = _____

9) h(x + 2) for x = 2 _____

10) 3h(x) for x = 0 _____